Annual Report

of the

Supplies of Water available for Irrigation Works and of the Discharge from Catchment Areas in the Bombay Presidency

For the Year 1924

[Price—Rs. 10 As. 4 *or* 17*s*.]

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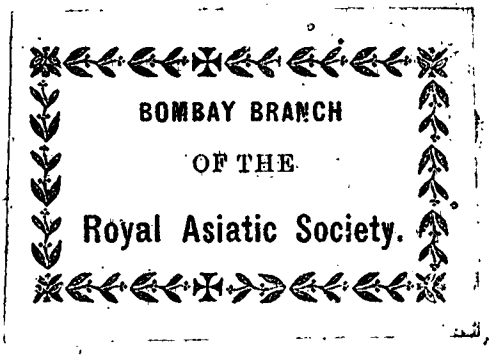

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In paragraph 11 of a note dated 20th June 1906 the Inspector General of Irrigation required the following information regarding projects to be given:—

(*a*) Names and location of projects.

(*b*) Position and date of institution of existing river gauges for each project.

(*c*) Position of additional river gauges which it is now considered expedient to institute.

(*d*) Present procedure as to the observation of river discharges in case of rivers now gauged for new projects and that which is proposed in future with regard to these and others on which it may be considered expedient to establish gauges.

In paragraph 12 of the same note the following were required :—

(*i*) An index map to the scale of 8 miles to one inch in folded mounted sheets of convenient size, with the location of hills indicated by shading and showing as far as possible the following particulars with regard to each project :—

(*a*) Serial number.

(*b*) Configuration of catchment area where determined, otherwise the location to be indicated.

(*c*) Position of all existing rainfall stations : these to be indicated in a distinctive manner.

(*d*) Position of all proposed additional rainfall stations : these to be also shown in a distinctive manner and differently from (*c*) *supra*.

(*e*) Alignments of existing canals.

(*f*) Alignments of proposed canals in cases in which determined, and in which the length exceeds 10 miles.

(*g*) Location of existing river gauges which concern new projects, and sites proposed for additional gauges for the larger projects.

(*h*) Drainage features of the country, town and village sites and other topographical features usually shown on maps of this scale.

(*ii*) A tabular statement of projects giving the following information :—

(*a*) Serial number as on the index map.

(*b*) Name of projects.

(*c*) Catchment area in square miles when determined.

(*d*) Number of rainfall stations within the catchment area.

(*e*) Additional number of rainfall stations proposed within the catchment area.

(*f*) Frequency of river discharge observations in the past.

(*g*) Proposed frequency of river discharge observations in future.

(*h*) Remarks.

(*iii*) A report showing that the proposed arrangements will be adequate.

STATEMENT I.

Position of River Gauges in Sind.

Report as per paragraph 11 of the Note, dated 20th June 1906, by the Inspector-General of Irrigation.

(11*a*).—The requisite information is given in the accompanying map of Sind.

(11*b*).—The following are the permanent river gauges fixed on the Indus for recording the heights at high and low water seasons :—

	Position of the Indus River gauges.	Date of institution.	Projects for which gauges will be useful.	Remarks.
1.	A gauge about 1,000 feet below the Desert Canal mouth on the Right Bank.	1903 ..	(1) Proposed Khelat Canal.	
2.	A gauge opposite the Desert Canal on the Left Bank.	1909 ..		
3.	A gauge between the Desert Canal and the Unharwah situated opposite mile 34/6 of the Kashmor Bund on the Right Bank.	1909 ..		
4.	A gauge at the mouth of the Unharwah on the Right Bank.	1908 ..	Gauges from 1 to 8 are useful for raising Right Bank Bunds above Sukkur and Left Bank Protective Bund above Rohri.	
5.	A gauge at the new mouth of the Begari Canal (Right Bank).	1913 ..		
6.	A gauge at the mouth of the new feeder to the Sind Canal on the Right Bank.	1909 ..		
7.	A gauge about 800 feet above the mouth of the Rajib Canal on the Right Bank.	1908 ..		
8.	Bukkur gauge on the Bukkur Island situated in the Indus opposite Sukkur.	1848 ..	Gauges from 8 to 11 are useful for— (1) Lloyd Barrage. (2) Right Bank Canal. (3) Eastern Nara Canal. (4) Rohri-Hyderabad Canal.	
*9.	Sadh Belo gauge on the Sadh Belo Island situated about 1 mile below the Bukkur Island in the Indus.	1898 ..		*The name Sadh Belo has been adopted from the year 1922 as it is the correct name of the island on which the gauge is fixed.
10.	Outfall gauge in the Bunder wall at Sukkur about 3,642 feet below Gao Ghat gauge on the Right Bank.	1903 ..		
11.	Bhagotoro gauge about a mile and a quarter above Lakl Railway Station at the mouth of the Aralwah on the Right Bank.	1907 ..		
12.	A gauge 1,000 feet above Jamshora Head Regulator over the Fuleli Canal and about ¼th mile from the river on the Left Bank.	1904 ..	Improvements of Fuleli Canal.	
13.	Kotri gauge at Kotri opposite Sub-divisional Office, *Indus River Commission*, on the Right Bank.	1863 ..	(1) Kotri Barrage. (2) *Improvements* of Fuleli Canal.	
14.	Mehrani gauge about 7½ miles below Kotri on the Left Bank.	1904.	(3) Eastern Delta Canal.	
15.	Naro gauge about 13 miles below Kotri on the Left Bank.	1904.		
16.	Hajipur gauge about 2½ miles below Naro gauge on the Left Bank.	1904.		
17.	Hassanali gauge at the mouth of the Hassanali Canal on the Left Bank.	1904.		
18.	Jerruck gauge about 30 miles below Kotri on the Right Bank.	1900 ..	(1) Jerruck Barrage. (2) Baghar re-modelling.	
19.	Uchito gauge at the mouth of the Gharowah on the Right Bank of the Uchito River.	1906 ..	Tidal gauge.	
20.	Chowgazo gauge at the mouth of the Chowgazowah on the Left Bank of the Haideri River.	1906 ..	Do.	

(11*c*).—Nil.

(11*d*).—Discharges of the Indus were observed at Mithankot, Sukkur and Kotri and a comparison of the gauging at Sukkur and Mithankot

STATEMENT I—*contd.*

below the junction of the Chenab with the Indus gives the following results :—

Name of gauging station.	Average daily discharge in each month.					
	May 1924.	June 1924.	July 1924.	August 1924.	September 1924.	October 1924.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
(1) Mithankot below the junction of the Chenab with the Indus.	1,23,300	2,07,800	*	*	3,74,700	1,12,100
(2) Sukkur	1,05,800	1,82,000	4,47,800	5,61,800	3,54,900	1,02,900
Difference	17,500	25,800	—	—	19,800	9,200

Name of gauging station.	Average daily discharge in each month—*contd.*					
	November 1924.	December 1924.	January 1925.	February 1925.	March 1925.	April 1925.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
(1) Mithankot below the junction of the Chenab with the Indus.	58,800	49,900	44,300	37,500	33,600	46,000
(2) Sukkur	56,400	43,100	44,000	40,000	31,800	42,700
Difference	2,400	6,800	300	2,500	1,200	3,300

* Observations not taken.

Discharges at Mithankot, Sukkur and Kotri were measured daily and silt and velocity observations were taken twice a week. Before this year the only meter used for discharge purposes was Haskill's current meter type 'B'. Gurley meters were introduced in the cold weather of 1925 as they give more reliable results than Haskill for velocities lower than 1·6 feet per second. Velocities observed at 6/10th of the depth at each station have been taken as the mean velocity of discharge.

Discharges at Ghazi Ghat and Panjnad which were recorded by the Government of the Punjab, were as under :—

Name of gauging station.	Average daily discharge in each month.					
	May 1924.	June 1924.	July 1924.	August 1924.	September 1924.	October 1924.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
Ghazi Ghat (Dera Ghazi Khan).	67,800	1,05,400	2,99,500	3,42,600	1,95,300	66,300
Panjnad	34,900	67,400	1,89,600	2,24,300	1,33,000	31,400

Name of gauging station.	Average daily discharge in each month—*contd.*					
	November 1924.	December 1924.	January 1925.	February 1925.	March 1925.	April 1925.
	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	Cusecs.
Ghazi Ghat (Dera Ghazi Khan)...	42,500	32,500	31,200	30,900	26,400	42,800
Panjnad	15,300	12,000	12,100	11,100	8,400	12,000

STATEMENT II.

SIND.

Statement of Gauges at Head Regulators of Canals.

Gauges at the Head Regulators of Canals.	Date of institution.	Projects for which useful.
1. Desert Canal	1877 ..	Proposed Khelat Canal.
2. Unharwah	1885 ..	Right River Embankment above Sukkur.
3. Begari	1879 ..	(1) Right River Embankment above Sukkur. (2) Begari Canal.
4. Sind Canal	1898 ..	Right River Embankment above Sukkur.
5. Sukkur Canal (Rahuja Head)	1875 ..	(1) Right Bank Canal from Sukkur. (2) Lloyd Barrage.
6. Nara, Upper	1862 ..	(1) Left Bank and Eastern Nara System of Canals. (2) Lloyd Barrage.
7. Ghar	1879 ..	(1) Right Bank Canal from Sukkur. (2) Right River Embankment below Sukkur.
8. Western Nara, Akil Mouth ..	1904 ..	(1) Right Bank Canal from Sukkur. (2) Right River Embankment below Sukkur.
9. Pritchard	1890 ..	(1) Right Bank Canal from Sukkur. (2) Right River Embankment below Sukkur.
10. Pinyari	1882 ..	(1) Kotri Barrage. (2) Eastern Delta Canal. (3) Left River Embankment below Kotri.
11. Kalri	1895 ..	(1) Right Bank Canal below Kotri Barrage. (2) Right River Embankment below Kotri.
12. Baghar	1868 ..	(1) Right Bank Canal below Kotri Barrage. (2) Right River Embankment below Kotri. (3) Baghar Canal.
13. Fuleli Canal, Jamshoro ..	1889 ..	(1) Kotri Barrage. (2) Fuleli Canal. (3) Left River Embankment.
14. Dad	1897 ..	Left River Embankment below Sukkur.
15. Sehar	1901 ..	(1) Sehar Canal. (2) Left River Embankment.
16. Mahi	1901 ..	(1) Mahi Canal. (2) Left River Embankment.
17. Masu	1898 ..	(1) Ghotki Canal.
17. Maharo	1898 ..	(2) Left River Embankment.

STATEMENT III.

Table showing Projects in Gujarat with the particulars called for in paragraph 11 of the Note, dated 20th June 1906, by the Inspector-General of Irrigation.

FOR WORKS WITHOUT STORAGE.

Serial No.	Project.		River Gauge.		
	Name.	Location.	Position.	Date of erection.	Present procedure of observing river discharges.
			GUJARAT.		
1	Dharoi Reservoir Project and Sabarmati Canal Project.	Mahi Kantha Agency and parts of Baroda territory.	At Hadol about a mile eastwards on the Sabarmati River.	1904-05 ..	In rainy season the rivers are gauged twice a day and for the rest of the year once a day, except the rivers Meshwa, Watrak and Mohor, which are gauged weekly when the discharge is reduced to 15 cusecs.
2	Sabarmati Canal Project.	Daskroi, Sanand and Dholka Talukas of the Ahmedabad District.	At Dudheshwar, ½ mile downstream of Railway Bridge on the Sabarmati River.	1901.	
3	Mahi Canal Project.	Thasra, Anand, Nadiad and Matar Talukas of Kaira District and part of Baroda territory.	At Pali about a mile upstream of the Railway Bridge on the Anand - Godhra Line on the Mahi River.	27th August 1904.	Gauge readings are taken during flood and the surface velocities observed by means of floats; soundings are taken in addition when the river stream is low.
4	Do. ..	Do. ..	At Railway bridge near Lunawada on Panam River, *vide* remark for Serial No. 9 of Statement V.	14th September 1907.	
5	Meshwa Canal Project.	Mehmedabad and Matar Talukas.	At Harsol on Meshwa River.	1905.	
6	(On Mohor River.)	For project that may be contemplated in future.	Near Kapadvanj on Dakor-Kapadvanj Road Bridge on Mohor River.	1907.	
7	(Watrak River.)	Do. ..	Near Ratanpur on Watrak River.	1907.	
8	Tapti River ..	....	At Dholan Pardi.	25th April 1901.	The gauge readings on the rivers Tapti and Narbada are taken for 7 months only (1st November to 31st May) and the river discharges calculated, the surface velocity being observed by means of bottle floats.
9	Narbada River..	....	Gurdeshwar ..	19th November 1905.	

STATEMENT IV.

STATEMENT

Tabular Statement of Projects giving the information required by General

STORAGE WORKS

Serial Number as per Index Map. *a*	Name of Project. *b*	Catchment area in square miles where determined. *c*	Number of rainfall stations within the catchment area. *d*
			GUJARAT.
17	Hathmati Reservoir Project	224	*Nil* ..
18	Sabarmati Canal and Dharoi Reservoir Project.	3,400	6 ..
19	Mahi Canal Project (Panam River)	11,840	3 in British Territory .. / 7 in Native States ..
20	Khari Reservoir Project	310	2 ..
			DECCAN.
1	Nasik Left Bank Canal, Gangapur Tank ..	146	3 at Trimbak, Vaghra and Girnara.
2	Godavari Canals (Darna Storage)— Unanda Storage at Wajarkhed	68	2 at Achala Fort and Wajarkhed.
	Kadva Storage at Karanjawan	96	2 at Charosa and Kosimba.
	Aundh Storage at Mukhne	52	1 at Kusegaon ..
3	Darna Right Bank Canal— Karwa Storage at Pimpalgaon	67	2 at Indori and Taki B ..
4	Pravara River Project	47	2 ..
5	Mula Right Bank Canal— Mula Storage at Chas	171	4 (at Harischandragad, Pachnai, Kotul and Chas).
	Mula Storage at Mandvi	538	As above ..
	Mula River at Rahuri (no storage proposed) ..	852	Do. ..
6	Kukari Left Bank Canal— Kukari Storage at Pimpalwandi and Ghod Storage.	288	4 at Junnar, Pur, Malsej and Utur.
7	Mina Canals— Mina Storage at Wadgaon	65	2 at Shewali and Dhamankhed.
8	Ghod Right Bank Canal— Ghod Storage at Nirgudsar	284	4 at Ghod, Asane, Manchar and Anpa.
9	Bhima Canals— Bhima Storage at Kaman	140	3 at Bhimashanker, Wade and Kaman.
10	Mutha Canal Extension Project— Lake Fife	196	4 Musa, Garli, Mutha and Yegra.
11	Nira Right Bank Canal— Yelwandi (raised) Storage at Bhatghar ..	128	3 at Bhatghar, Bhordi and Rajgad.
	Nira Storage at Vir	635	5 at Nigurghar, Shirgaon Margasni, Torna Fort and Khed Shivapur.

IV.

paragraph 12 (ii) of the note, dated 20th June 1906, by the Inspector of Irrigation.

AS PROPOSED.

Additional Number of rainfall stations proposed in the catchment area. *e*	Frequency of river discharge observations in the past. *f*	Frequency of river discharge observations in the future. *g*	Remarks. *h*
Nil ..	Gauged over the weir daily since 1886.	Daily ..	Observations have been taken since the construction of the weir in 1873-74.
Do. ..	Gauged daily since 1901 ..	Daily since 1904.	
Do. ..	Gauged daily since 1904 ..	Do.	
Do. ..	Gauged daily since 1893 ..	Daily ..	Observations are being taken daily in monsoon and weekly at other times since 1893.
Nil ..	Twice a day, 1st June to 31st December.	Same as in column *f*.	
Do. ..	1st June to 31st December	Do. ..	Completed.
Do. ..	Do. ..	Do. ..	These are all in connection with increased supply to the Godavari Valley system in Nasik.
Do. ..	Do. ..	Do. ..	
Do. ..	Do. ..	Do.	
Do. ..	*Nil* ..	Do. ..	Under construction.
Do. ..	Do. ..	*Nil*.	
Do. ..	Whole year ..	Same as in column *f*.	The river gauge is at Tas not far below Mandvi.
Do. ..	1st June to 31st December.	Do. ..	This is the continuation of an old gauge and is useful if the proposal of a weir above Kahuri should be revived.
Do. ..	Do. ..	Do.	
Do. ..	Do. ..	Do. ..	Some of this water may be given to the Kukari Left Bank Canal.
Do. ..	Do. ..	Do. ..	Do. do.
Do. ..	Do. ..	Do.	
Do. ..	Whole year over 30 years available.		
Do. ..	Whole year ..	Same as in column *f*.	Under construction.
....	Do. ..	Do.	

STATEMENT

Serial Number as per Index Map.	Name of Project.	Catchment area in square miles where determined.	Number of rainfall stations within the catchment area.
a	*b*	*c*	*d*
			DECCAN—*contd.*
12	Krishna Extension Project at Kamargaon ..	346	13, *viz.*, at Malcolmpeth, Panchgani, Dhom, Wai, Sonar, Medha, Bomnoli, Kas, Satara, Rewadi, Koregaon, Helwak and Patan.
13	Gokak Extension Project (Ghataprabha Project)	1,080	15, *viz.*, Ajra, Hukeri, Gadhinglaj, Chandgad, Tambulwadi, Punara, Amboli, Hattargi, Benalli, Lankeshwar, Gausa, Waghotra, Rajgoli, Adkur and Patna.
14	Ghataprabha Right Bank Canal	410	8, *viz.*, Amboli, Punara, Adkur, Waghotra, Chandgad, Patna, Rajgoli and Tambulwadi.
	Harankashi Storage at Ajra	94	2 at Ajra and Gausa ..
	Ghataprabha Storage at Hadlag	134	3 at Amboli, Punara and Adkur.
	Tamraparni Storage at Rajgoli	206	5 at Waghotra, Patna, Chandgad, Rajgoli, and Tambulwadi.
15	Malaprabha Project— Malaprabha Storage at Asoga	116	2 at Kankumbi and Jamboti
	Malaprabha Storage near Khanapur ..	179	1 at Khanapur ..
16	Wardha Project unknown	....	....
21	Madag Canal Right Bank Extension ..	540	*In the catchment area of the Tank.* 1 at Kalemani.
23	Girna	1,826	....

IV—*concld.*

Additional number of rainfall stations proposed in the catchment area. *e*	Frequency of river discharge observations in the past. *f*	Frequency of river discharge observations in the future. *g*	Remarks. *h*
Nil ..	1st June to 31st December.	Same as in column *f*.	
Do. ..	Throughout the year ..	....	
Do. ..	1st June to 31st December.	....	
Do. ..	Do. ..	Same.	
Do. ..	Do. ..	Do. ..	The Ghataprabha storage at Daddi combines these two in one, and although the catchment area is increased to 410 square miles, the river discharge would be about the same as the sum of these.
Do. ..	Do. ..	Do. ..	
Do. ..	....	1st June to 31st December.	At dam site.
		Whole year ..	Below junction of river near Khanapur.
Do. ..	....	....	
Do. ..	....	....	Gauging started in July 1908.
Do. ..	Discharge of the river near Bellur was taken once a day from 1870 to 1893 and then discontinued. The discharge of the waste weir of the existing small tank has been taken once a day whenever it overflowed from 1893.	Discharge to be taken once a day.	Reasons why more rain gauges are not proposed are that the waste weir overflows continuously with an average flood depth of 5 feet for about 4 months in the year, and the discharge is measured.
....	Daily since 1871, with the exception of 4 years of incomplete record.	Daily at Jamda Weir.	Storage at Panjhan, 1,826 square miles catchment. River gauging at Jamda Weir, 2,389 square miles catchment, but the addition is not Ghat catchment.

STATEMENT

Abstract Statement of yearly Discharges of

Serial No.	Project Number as per map.	Name of river and site.	Catchment area above site.	1905.	1906.	1907.
			Sq. miles.	M. c. ft.	M. c. ft.	M. c. ft.
						GUJARAT
1	18	Sabarmati near Hadol ..	3,490	2,276	5,758	22,363
2	18	Sabarmati near Dudheshwar ..	4,282	..	..	27,455
3	17	Hathmati near Himatnagar (Ahmednagar, Idar).	524	2,065	5,796	11,241
4	20	Khari near Raipur ..	310	..	..	(3,065-1,194)* =1,871
5	..	Meshwa near Harsol ..	422	2,349	1,856	6,906
6	..	Watrak River near Ratanpur ..	611	..	..	..
7	..	Mohor River near road-bridge over Nadiad-Kapadvanj Road.	225	..	..	..
8	19	Mahi near Pali ..	11,840	356,369	257,903	291,866
9	..	Panam at Railway bridge near Lunawada.	977	..	..	..
						CENTRAL INDIA
10	..	Narbada at Gurdeshwar ..	42,350	25,567	29,271	13,632

Note.—The observations made pertain
References to the signs, * etc., which are not given on the

V.

Rivers in the Deccan and Gujarat.

1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
CATCHMENT.									
120,212	40,482	65,674	3,546	30,087	25,729	18,664	3,848	42,157	49,622
108,176	49,826	51,564	7,557	25,781	37,582	28,415	9,949	44,401	76,754
79,752	28,981	6,989	2,723	4,678	8,444	4,662	1,008	14,267	16,903
4,104†	3,150	2,890	634	2,635†	1,524	4,670	984	752	3,908
9,766	10,979	7,442	623	11,942	11,358	18,270	754	3,598	5,062
,315	5,503	6,167	1,617	5,800	16,379	40,304‡	1,698	4,491	11,518
995	2,016	2,072	*Nil.*	815	2,016	2,203	407	1,421	4,987
224,105	369,970	453,239	38,159	335,684	685,046	237,110	42,974	641,154	801,221
42,400	14,104	31,520	2,037	45,669	139,053‡	16,337	7,833	17,407	41,577
CATCHMENT.									
..	283,527	99,713	154,243	133,803	79,449	66,861	41,265	29,032	94,676

to the period 1st May to 30th April following.
same page will be found in the remarks column of the statement. ‡ Doubtful

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	Catchment area above site.	1905.	1906.	1907.
			Sq. miles.	M. c. ft.	M. c. ft.	M. c. ft.
11	..	Arunawati at Karwand ..	250	..	DECCAN 5,042	(DECCAN 841
12	..	Tapti at Dholan Pardi ..	26,015	7,494	CENTR 8,602	AL INDIA 4,944
13	..	Aner at Ganpur ..	502	49,145	DECC 16,592	AN (GHAT 2,999
14	..	Tapti at Kathra ..	12,371	..	CENTR	AL INDIA
15	..	Kan at Khandbara ..	34	..	DECCAN 834	(DECCAN 1,710
16	..	Waghur at Raipur ..	700	..	17,894	8,419
17	..	Panjra at Pankheda ..	52	..	DECC ..	AN (GHAT 2,303
18	..	Panjra near Nyhalod ..	802	..	..	15,204
19	..	Panjra near Dhulia ..	714	..	..	14,952
20	..	Bori at Purmapada ..	117	401 ×	DECCAN 1,758	(DECCAN 856
21	..	Masom at Sangameshwar ..	332	..	DECC ..	AN (GHAT 8,929
22	..	Girna at Thengoda ..	413	..	..	..
23	23	Girna at Jamda ..	2,389	25,492	32,114	16,918
24	23	Girna at Rahipuri ..	2,389	..	..	..
25	..	Manad at dam site ..	342	267	DECCAN 3,321	(DECCAN 289
26	2	Unanda at Wazerkhed ..	68	1,781	DECC 2,010	AN (GHAT 3,167
27	2	Kadwa at Karanjwan ..	96	4,430	4,668	10,011
28	..	Odal at Khadakozath ..	38	..	DECCAN 1,169	(DECCAN 651
29	2	Kadwa at Palkhed ..	314	8,978	DECC 11,691	AN (GHAT 36,383
30	1 & 2	Godavari at Gangapur ..	145	6,313	5,531	14,590
31	2	Godavari at Nandur-Madhmeshwar.	1,650	61,371	63,709	106,455

× Discharges observed not reliable.

V—*contd.*

1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
CATCHMENT).									
582	2,079	7,000	242	522	4,958	19,732	925	3,504	206‡
CATCHMENT.									
..	80,054	29,554	22,276	13,386	14,730	11,631‡	14,570	5,986	97,994
CATCHMENT).									
4,567	1,695	4,320	1,155	4,785	20,981‡	17,458	9,552‡	16,966	12,599
CATCHMENT.									
109,445	62,464	236,088	62,858	79,928	208,535	189,114	101,927	233,767	219,103
CATCHMENT).									
2,071	1,167	2,405	668	1,750	2,377	2,379	1,113	1,183	4,486‡
6,881	5,344	3,479	664	2,153	4,319	8,293	4,670	7,371	6,459
CATCHMENT).									
2,405	2,635	2,820	861	4,322	2,407	6,848	2,626	5,143	5,102
24,178	36,491	39,300	1,549	30,053	×	21,443	6,024	8,019	7,670
21,526	27,270	31,800	1,852	19,234	×	10,352	3,992	6,729	14,720
CATCHMENT).									
731	1,392	5,697	903	2,976	×	2,875	1,512	24,605‡	4,190
CATCHMENT).									
5,500	8,952	8,710	3,310	6,771	2,343	15,290	14,832	18,976	21,974
..	14,436	11,576	12,190	9,888	20,865	35,470	13,703	14,428	24,154
32,421	22,943	42,076	8,745	39,089	34,169	44,717	17,847	×	30,863
..	..	..	..	..	..	..	..	..	28,166
CATCHMENT).									
582	1,788	2,494	1,597	3,025	2,925	5,642	3,726	8,883	2,639
CATCHMENT).									
2,014	3,864	4,944	1,690	2,979	3,227	17,719	3,154	2,257	3,554
8,359	10,437	7,536	3,671	9,662	14,462‡	24,682	7,471	8,025	7,683
CATCHMENT).									
302	1,474	2,179	1,011	1,615	732	5,043	4,378	6,116	1,000
CATCHMENT).									
20,214	15,685	19,691	12,173	37,186	26,229	62,888	28,591	22,949	36,908
9,893	10,234	7,918	5,394	17,432	21,879	22,389	12,635	12,299	14,768
103,591	56,806	94,289	21,692	47,773	59,618	109,330	62,051	85,289	64,071

‡ Doubtful.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	Catchment area above site.	1905.	1906.	1907.
			Sq. miles.	M. c. ft.	M. c. ft.	M. c. ft.
					DECC	AN (GHAT
32	2&3	Darna at Nandgaon ..	156	17,969	21,063	36,187
33	2&3	Aundha Nala at Mukhne ..	52	3,424	6,786	10,898
34	2&3	Karwa at Pimpalgaon ..	67	3,274	3,214	4,880
35	4	Pravara at Ojhar Weir ..	621	20,861	26,059	27,387
36	5	Mula at Chikalthan ..	681	..	28,509	39,601‡
37	5	Mula at Rahuri ..	900	19,919	32,290	36,879‡
38	6	Kukari at Edgaon ..	265	12,078	11,171	29,007
39	7	Mina at Wadgaon ..	78	4,408	5,592	7,162
40	8	Ghod at Nirgudsar ..	284	..	19,477	39,610
41	..	Ghod at Kathapur ..	427	..	..	..
42	6	Kukari at Shirapur ..	464	13,441	13,467	28,943
43	9	Bhima at Chas-kaman ..	140	..	9,176	18,155
44	10	Lake Fife at Khadakvasla ..	196		Trans	ferred to
45	11	Yelwandi at Bhatghar (Lake Whiting).	128		Trans	ferred to
					DECCAN	(DECCAN
46	..	Seena at Hatwalan ..	446	827	3,281	4,724
					DECC	AN (GHAT
47	11	Gunjawni at Mohori ..	183	14,219	13,301	28,151
48	..	Nira at Apti (formerly called Nira at Natambi).	59	..	..	..
49	11	Nira at Karanja ..	86	13,879	12,276	20,525
50	11	Nira at Vir ..	700	61,603	59,023	102,380
51	12	Krishna at Dhom ..	84	..	..	28,110
					DECCAN	(DECCAN
52	12	Yerla at Yeralwadi ..	274	130	2,330	8,479
					DECC	AN (GHAT
53	12	Koyna at Helwak ..	359	117,400	118,612	173,655

V—*contd.*

1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
CATCHMENT).									
17,378	13,773	Figures	from 191	0 transfe	rred to S	tatement V	I.	..	..
5,313	14,971	11,955	2,691	13,521	4,285	9,938	3,253	3,703	3,892
4,945	4,306	8,632	2,403	6,172	7,558	14,701	5,976	6,868	3,570
38,767	36,011	33,633	17,708	26,927	29,817	47,085	28,012	40,956	48,354
40,215	34,156	55,049‡	27,959‡	45,466‡	56,405	70,029‡	47,381‡	49,586‡	30,194
44,090	42,171	49,370	24,564‡	35,865‡	63,688‡	59,286‡	41,269‡	57,028‡	34,858
24,742	24,255	26,470	19,240	22,334	48,499‡	41,942	26,574	40,777	30,248
2,861	4,260	6,364	5,548	10,157	11,042	17,710‡	9,195‡	14,814	6,535
47,852	42,006	53,493	17,948	57,661	47,624	45,700	29,744	41,479	18,125
..	..	..	..	..	..	..	..	..	..
32,456	32,023	35,123	24,073	31,733	41,334	95,228	64,562	84,854‡	29,872‡
24,064	13,360	31,054	21,263	37,500	50,444	31,006	16,718	18,048	14,341
Statement VI.									
Statement VI.									
CATCHMENT).									
1,369	3,172	10,364	2,913	1,489	7,653	6,855	4,663	12,593	4,152
CATCHMENT).									
25,039	21,851	27,081	7,704	21,449	24,506	31,344	21,549	12,704	24,716
..	..	..	..	..	..	..	..	..	..
20,363	18,806	25,963	9,968	15,583	29,324	25,823	14,411	23,390	24,229
103,998	83,392	90,755	51,956	81,800	82,230	127,661	91,370	63,950	85,122
26,160	21,232	44,183	14,077	35,855	29,721	45,737	31,189	17,477	15,926
CATCHMENT).									
4,621	5,423	6,078	3,130	4,193	4,095	3,236	3,340	6,094	2,361
CATCHMENT).									
188,795	177,940	167,482	108,226	76,623	152,291	236,457	134,472	139,684	130,530

‡ Doubtful.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	Catchment area above site.	1905.	1906.	1907.
			Sq. miles.	M. c. ft.	M. c. ft.	M. c. ft.
					DECCAN GHAT	
54	..	Krishna at Khodsi Weir ..	*1,322	35,096	67,822	82,745
55	..	Krishna at Kusnal ..	7,299	..	..	..
56	13	Harankashi at Ajra ..	94	24,974	32,990	42,172
57	13 & 14	Ghataprabha at Hadlag ..	134	21,718	30,021	50,289
58	13 & 14	Ghataprabha at Gokak or Dhupdal Weir.	††1,080	53,381	80,587	153,913
59	13 & 14	Tamraparni at Rajgoli ..	206	13,804	21,079	36,614
60	14	Markandya at Shirur ..	165	1,944	4,138	8,398
61	15	Malaprabha at Bhutewadi ..	126	..	..	30,181
62	15	Malaprabha at Khanapur ..	179	..	..	32,203
63	16	Wardha at Banwasi ..	444	..	..	..
64	22	Dharma near Shringeriwad ..	60	..	..	..
65	21	Kumudvati River, Bellur village, and Madag Tank.**	540	..	..	..

* This figure of the catchment area has been verified and found correct. The figure 1,284 square miles seems to be the catchment area of the river up to the previous river gauge station at Umbra which has long since been discontinued.

V—*contd.*

1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
C A TCH MENT.									
90,018	71,178	72,720	38,982	56,499	73,983	100,834	96,489	73,440	79,815
..	..	..	..	..	..	..	..	..	..
48,802	37,734	41,899	38,545	51,267	33,844	64,041	41,072	52,347	31,858
50,538	38,034	35,400	32,521	57,458	37,016	67,050	33,928	37,811	37,013
155,933	107,750	109,207	84,545	172,750	92,958	217,591	113,252	134,246	119,043
37,886	27,097	25,016	21,451	51,954	29,677	74,086	30,173	32,714	26,828
8,135	4,952	3,364	2,907	15,397	3,873	×	5,891	5,257	4,223
21,057	15,065	13,942	11,727	26,707	14,238	29,677	11,580	14,304	10,327
24,407	18,884	15,755	10,823	33,345	15,147	44,421	17,479	19,779	16,658
47,661	39,314	33,744	31,068	62,678	41,466	55,954	22,849	44,819	39,223
1,070	2,039	1,432	916	3,746	1,125	5,402	1,624	1,697	1,285
18,696	15,149	20,424	17,711	24,828	20,061	23,300	8,800	11,944	11,667

× Discharges observed not reliable.

STATEMENT

Abstract Statement of yearly Discharges of

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
							(GUJARAT
1	18	Sabarmati near Hadol ..	8,981	27,265	16,493	26,717	387
2	18	Sabarmati near Dudheshwar ..	16,133	37,144	19,510	20,140*	718
3	17	Hathmati near Himatnagar (Ahmednagar, Idar).	4,996	19,076	6,431	9,356	408
4	20	Khari near Raipur ..	1,056	5,119	2,972	2,854	539
5	..	Meshwa near Harsol ..	2,271	9,614	3,595	5,564	170
6	..	Watrak River near Ratanpur..	2,897	11,381	16,889	25,010	139
7	..	Mohor River near road-bridge over Nadiad-Kapadvanj Road.	94	3,275	1,199	3,053	..
8	19	Mahi near Pali ..	71,824	592,380	281,382	286,384	1,482

Note.—The observations made pertain to the

† Doubtful.

‡ The rainfall recorded is correct

§ The rainfall recorded is correct

¶ The run-off is from calculations

V —*contd.*

Rivers in the Deccan and Gujarat—contd.

1st May 1922 to 30th April 1923.	1923-24.	1924 25.	Rain gauge stations within the catchment and rainfall in inches for 1924-25.	Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
CATCHMENT).							
21,879	6,645	10,871	Mount Abu 65·83	‡65·83	¶0·021	1	The river was gauged from 1st May 1924 to 30th April 1925.* The excessive loss in discharge between Hadol and Dudheshwar is probably due to heavy leakage in the boulder formation of the river channel passing from the sub-montane tract.
32,132	8,681	13,444	Hadol 33·15, Mount Abu 65·83, Idar 40·90, Himatnagar 28·56, Sadra 24·14, Ahmedabad 24·05.	‡36·10	¶0·037	2	
6,037	467	3,358	Idar 40·90, Himatnagar 28·56	§34·73	¶0·0794	3	The river was gauged from 8th July 1924 to 4th April 1925.
990	174	441	Himatnagar 28·56, Prantij 30·26	§29·41	¶0·0209	4	The river was gauged from 27th June 1924 to 19th November 1924.
2,070	50·1	2,346	Modasa 39·16 Mohanpur 28·69	§33·93	¶0·07	5	The river was gauged from 17th June 1924 to 4th April 1925.
6,040	†6,445	11,249	Modasa 39·16 Ratanpur 23·67	§31·42	¶0·25	6	The river was gauged from 18th June 1924 to 28th February 1925.
781	†1,089	2,451	Kapadvanj 37·51	§37·51	¶0·13	7	The river was gauged from 7th July 1924 to 20th November 1924.
209,488	173,904	358,882	Sevalia 29·71 Balasinor 35·13 Lunavada 32·72 Sant Rampur. 40·27 Neemuch 35·14 Jhalod 31·66 Dohad 30·21 Devgad Baria. 37·43 Godhra 36·63	‡34·32	¶0·37	8	The river was gauged from 17th June 1924 to 30th April 1925.

period 1st May to 30th April following.

for only a portion of the catchment.
for the whole catchment.
based on the average rainfall.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
9	..	*Panam at Railway bridge near Lunawada.	8,783	58,893	82,235	37,036	111
						(CENTRAL	INDIA
10	..	Narbada at Gurdeshwar ..	60,391	24,001	28,424	37,449	20,864
						DECCAN (D	ECCAN
11	..	Arunawati at Karwand ..	243	2,334	2,568	4,156	..
						(CENTRAL	INDIA
12	..	Tapti at Dholan Pardi ..	18,115	5,250	4,452	3,804	4,013
						D ECCAN	(GHAT
13	..	Aner at Ganpur ..	928	6,301	3,931	4,971	302
						(CENTRAL	INDIA
14	..	Tapti at Kathora ..	20,313	77,137	42,976	123,882	2,293

† The rainfall recorded is correct
‡ The run-off is from calculations
§ Doubtful.

¶ During the year under review fresh cross and longitudinal sections were taken wetted perimeters were prepared and utilised

V—*contd.*

1st May 1922 to 30th April 1923.	1923-24.	1924-25.	Rain gauge stations within the catchment and rainfall in inches for 1924-25.	Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
13,864	4,636	7,567	Lunawada 32·72 Devgad 37·43 Baria.	†35·08	‡0·10	9	The river was gauged from 16th June 1924 to 31st December 1924. *From the year 1922 the discharge of the Panam river is measured at this site and not near Amlidi Muvada as in the previous years.
CATCHME NT).							
62,715	83,940	82,178	....	..	..	10	As the rain gauges in the catchment of the Narbada are insufficient to give any indication of run-off throughout the year, it has not been possible to obtain the rainfall records for the rather extensive area and the figures given represent the hot weather flow only.
CATCHME NT).							
1,548	1,397	1,152	Karwand 21·09	21·09	·09	11	
CATCHME NT).							
7,168	6,977	5,037	....	..	..	12	As the rain gauges in the catchment of the Tapti are insufficient to give any indication of run-off throughout the year, it has not been possible to obtain the rainfall records for the rather extenstive area and the figures given represent the hot weather flow only.
CATCHME NT).							
6,923	3,493	1,867	Chopada 27·80	27·80	·06	13	
CATCHME NT.)							
97,402	81,587	110,809	....	..	..	14	As the rain gauges in the catchment of the Tapti are insufficient to give any indication of run-off throughout the year, it has not been possible to obtain the rainfall records for the rather extensive area and the figures given represent the hot weather flow only.

for the whole catchment.
based on the average rainfall.

and as there were changes in them from the last taken, new tables of areas and in calculating the discharges in question.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
					DEC	CAN (D	ECCAN
15	..	Kan at Khandbara ..	2,069*	3,576	772	3,375*	9
16	..	Waghur at Raipur ..	3,591	10,037	4,234	16,593	1,975
					D	ECCAN	(GHAT
17	..	Panjra at Pankheda ..	1,273	6,460	1,601	5,678	91
18	..	Panjra near Nyhalod ..	1,589	16,502	1,933	8,135	410
19	..	Panjra near Dhulia ..	1,718	10,501	1,007	6,320	275
					DEC	CAN (D	ECCAN
20	..	Bori at Purnapada ..	..	1,242	253	2,179	..
					D	ECCAN	(GHAT
21	..	Mosam at Sangameshwar ..	2,034	26,169	2,659	4,756	..
22	..	Girna at Thengoda ..	4,932	19,166	3,176	8,571	..
23	23	Girna at Jamda ..	6,942	57,856	9,661	29,416	651
24	23	Girna at Rahipuri ..	6,235	58,899	9,796	42,885*	..

* Doubtful.

† During the year under review fresh cross and longitudinal sections were taken wetted perimeters were prepared and utilised

V—*contd.*

1st May 1922 to 30th April 1923.	1923-24.	1924-25.	Rain gauge stations within the catchment and rainfall in inches for 1924-25.		Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.			Inches.			
CATCHMENT).								
4,628	10,829	8,171	Amli Choupala	35·88 35·04	35·46	..	15	Figures of proportion of run-off to rainfall being misleading have been omitted. Courses that lead to such results are being investigated.
8,110	5,115	7,802†	Raipur Jamner	25·75 23·38	24·56	·20	16	
CATCHMENT).								
8,309	5,528	5,986	Pimpalner	24·15	24·15	..	17	Figures of proportion of run-off to rainfall being misleading have been omitted. Courses that lead to such results are being investigated.
8,094	11,044·39	11,620·22	Nyhalod Ambli Chawpala Dhulia	21·04 35·88 35·04 27·36	29·83	0·21	18	Discharge at Nimkhedi weir observed from 1st May 1924 to 30th April 1925.
5,389	8176·05	7,311·80	Dhulia Ambli Chowpala	27·36 35·88 35·08	32·78	0·13	19	Discharge at Mahindale weir observed from 1st May 1924 to 30th April 1925.
CATCHMENT).								
1,378	1,107	5,603†	Parmapada	22·48	22·48	·92	20	Figures for the years 1897 to 1904 are also available. *Several days omitted so that this figure is too low.
CATCHMENT).								
5,540	12,242	11,315	Nampur Taharabad Visapur	23·15 23·30 30·75	25·74	·57	21	
12,827	11,808	28,364	Chankapur Hatgad Kalwan Tirngoda	35·54 59·74 23·11 23·55	35·48	·54	22	
24,796	25,330·8	37,876·68	Nampur Lakshamapur. Malegaon Nandurtek Satana	23·15 ..19·03 23·76 18·11 19·62	25·67	0·30	23	The discharge is observed from 1st June 1924 to 31st Oct. 1924.
24,076	25,672·8	42,819·88	Taharabad Umbrane Chankapur Hatgad Kalvan Tirngoda Jamda	23·30 16·41 35·27 59·48 23·03 23·47 23·41			24	The rainfall noted is the average of 12 gauges in the Girnavalley.

and as there were changes in them from the last taken, new tables of areas and in calculating the discharges in question.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
					DECCAN	(DECCAN	
25	..	Manad at dam site ..	366	4,782	396	7,177	88
					DECCAN	(GHAT	
26	2	Unanda at Wazarkhed ..	875	9,809*	517	1,674	..
27	2	Kadwa at Karanjwan ..	2,902	9,730	2,496	5,360	..
					DECCAN	(DECCAN	
28	..	Odal at Khadakozath ..	290	2,326	191	980*	..
					DECCAN	(GHAT	
29	2	Kadwa at Palkhed ..	10,513	38,278	7,335	24,125	..
30	1 & 2	Godavari at Gangapur ..	6,182	47,160	7,078	14,577	10

* Doubtful.

† During the year under review fresh cross and longitudinal tables of areas and wetted perimeters were prepared

V—*contd.*

1st May 1922 to 30th April 1923.	1923-24.	1924-25.	Rain gauge stations within the catchment and rainfall in inches for 1924-25.	Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
CATCHMENT).							
7,910	3,384	2,073†	Nandgaon 20·69 Nayadongri 20·61	20·65	·13	25	
CATCHMENT).							
2,169	4,400	4,094	Wazarkhed 27·26 Achala Fort 48·06 Karanj-khed. 56·57 Wani 33·22	41·27	·63	26	
6,861	8,175	7,136	Charosa 80·50 Koshimba 43·31 Bhanwad 84·11 Nalwari 33·60	60·37	·53	27	
CATCHMENT).							
97	590	921†	No rain guage station.	..	..	28	
CATCHMENT).							
19,053	16,517	17,054	Inspection Bungalow, Waghad.. 54·33 Subordinate's quarters Waghad.. 45·44 Chachadgaon .. 56·49 Charosa 80·50 Achala Fort 48·06 Koshimba 43·31 Wazarkhed 27·26 Palkhed 23·47 Dindori 26·99 Bhanwad 84·11 Jalkheda 59·74 Karanjkhed 56·57 Nalwadi 33·60 Pophalwadi 64·35 Sadral 63·58 Wani 33·22 Rasegaon 35·58	49·21	·48	29	Figures from 1895 to 1904 are also available.
14,644	13,693	14,717	Waghere 35·11 Girnare 35·16 Trimbak 82·99	51·08	·85	30	

sections were taken and as there were changes in them from the last taken, new and utilised in calculating the discharges in question.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						D ECCAN	(GHAT
31	2	Godavari at Nandur-Madhmeshwar.	27,633	106,046	49,021	60,012	..
32	2 & 3	Darna at Nandgaon ..	..	..	..	..	..
33	2 & 3	Aundha Nala at Mukhne ..	1,622	4,008‡	3,985	3,743	..
34	2 & 3	Karwa at Pimpalgaon ..	771	4,149‡	2,107	2,708	..
35	4	Pravara at Ojhar Weir ..	13,655	40,506	30,594	19,360	..

× Discharges observed

† During the year under review fresh cross and longitudinal sections were of areas and wetted perimeters were prepared and

‡ Doubtful.

V—*contd.*

1st May 1922 to 30th April 1923.	1923-24.	1924-25.	Rain gauge stations within the catchment and rainfall in inches for 1924-25.	Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
CATCHMENT).							
68,266	72,013	80,943	Nasik 20 Deolali 24 Kherwadi 22 Girnare 35 Waghere 90 Palkhed 23 Wazarkhed 27 Achala Fort 48 Waghad Inspection Bungalow 54 Subordin a t e's quarters. 45 Ozar Tambat 25 Ambewadi 151 Koshimba 43 Indore 57 Kusegaon 97 Chachadgaon 56 Pimpalgaon 22 Niphad 28 Dindori 27 Taked 40 Igatpuri 105 Nalwadi 34 Bhanwad 84 Wani 33 Rasegaon 36 Jalkheda 60 Sadral 64 Pophalwadi 64 Ghoti Railway Station. 90 Dhamangaon 34 Velvihir 79 Jamundi 163 Waghere 35 Trimbak 83 Karanjkhed 57 Darna Dam 33 Charosa 81 Nandurma d h - meshwar. 63	56·34	·37	31	
..	..	..	....	..	..	32	
×	7,860	11,114	Kusegaon 96·94	96·94	·95	33	
3,015	3,222	3,950	Taked 40·03 Indore 56·86 D h amangaon .. 34·03	43·64	·58	34	
1,198‡	31,359	29,034	Akola 24·00 Sangamnere 21·00 Ghatghar on hill. 201·90 Ghatghar village. 202·00 Ghatghar Bungalow 202·41 Bhandardara .. 116·19 Udana 212·93 Samrad 158·00 Panjre 225·03 Shiptawari .. 227·02	51·13	·41	35	Figures are also available from 1882 to 1904. Total average rainfall has been arrived at by assigning to each guage its area of influence and taking the sum of the products of rainfall at each gauge and area of influence and then dividing this sum by the total catchment area.

not reliable.
taken and as there were changes in them from the last taken, new tables utilised in calculating the discharges in question.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						DECCAN	(GHAT
36	5	Mula at Chikalthan ..	9,447	35,053	17,307	24,091	..
37	5	Mula at Rahuri ..	13,748	48,288	21,511	40,304	449
38	6	Kukari at Edgaon ..	11,763	31,215	13,075	20,066	..
39	7	Mina at Wadgaon ..	1,999	7,108	3,450	7,111	..
40	8	Ghod at Nirgudsar ..	7,221	27,582	16,804	22,792†	..
41	..	Ghod at Kathapur ..	..	..	..	..	17
42	6	Kukari at Shirapur ..	9,114†	42,425	33,003	24,199	3
43	9	Bhima at Chas-kaman ..	5,633	18,182	9,275	12,871	..
44	10	Lake Fife at Khadakvasla ..	..	..		Transferred to	
45	11	Yelwandi at Bhatghar (Lake Whiting).	..	..	..	..	..
						DECCAN (D	ECCAN
46	..	Seena at Hatwalan ..	131	5,858	755	1,638	..
						DECCAN	(GHAT
47	11	Gunjawni at Mohori ..	7,425	23,917	23,905	20,410	52

* During the year under review fresh cross and longitudinal sections were of areas and wetted perimeters were prepared and

† Doubtful.

V—*contd.*

1st May 1922 to 30th April 1923.	1923-24.	1924-25.	Rain gauge stations within the catchment and rainfall in inches for 1924-25.	Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
CATCHMENT).							
28,398	27,855	31,117	Pachnai 215·02 Kotul 29·60 Chas 21·80 Harischandragad. 265·36 Brahmanpada. 40·80	114·70	·20	36	
64,106	33,777	33,883	Rahuri 19·16 Pachnai 215·92 Kotul 29·60 Chas 21·80 Harischandragad 265·36 Brahmanpada. 40·80	98·77	·16	37	
23,483	22,620	30,522	Junnar 28·52 Otur 26·65 Pur 80·36 Malsej 105·01	60·13	·82	38	
5,158	10,053	7,506	Shivali 81·09 Dhamankhed. 22·14	51·61	·80	39	Total average rainfall has been arrived at by assigning to each guage its area of influence and taking the sum of the products of rainfall at each gauge and area of influence and then dividing this sum by the total catchment area.
19,089	20,553	34,391	Aupe 198·90 Asne 106·70 Manchar 18·04 Ghoda 27·45	87·76	·50	40	
124	664	341	....	..	..	41	
32,539	33,471	40,042	Junnar 28·52 Otur 26·65 Pur 80.36 Malsej 105·01	60·13	·62	42	Gauging started in December 1902.
12,967	12,598	15,030	Bhimashanker. 201·53 Chaskaman 24·03 Wada 44·07	89·88	·51	43	
Statement	VI.	..	....	..	..	44	
..	..	..	....	..	..	45	
CATCHMENT).							
2,843	2,382	1,975	Ripon Hospital. 21·47 Kapurwadi 18·35	19·02	·10	46	
CATCHMENT).							
28,916	20,070	20,391	Khed Shivapur. 34·90 Margasne 40·97 Rajgad 114·61 Torna 60·61 Nasarapur 55·75 Kamthadi 35·83	57·11	·84	47	

taken and as there were changes in them from the last taken, new tables utilised in calculating the discharges in question.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						DECCAN	(GHAT
48	..	Nira at Apti (formerly called Nira at Natambi).	..	..	20,427	20,417	13
49	11	Nira at Karanja ..	8,542	31,886†	21,876	21,344	14†
50	11	Nira at Vir ..	27,810	96,745	84,898	7,384	..
51	12	Krishna at Dhom ..	6,704	15,995	14,847	15,376	84
						DECCAN (D	ECCAN
52	12	Yerla at Yeralwadi ..	1,205	2,898	2,049	3,949	118
						DECCAN	(GHAT
53	12	Koyna at Helwak ..	59,212	147,016	132,095	134,397	124

* During the year under review fresh cross and longitudinal sections were of areas and wetted perimeters were prepared and

† Doubtful.

V—*contd.*

1st May 1922 to 30th April 1923.	1923-24.	1924-25.	Rain gauge station within the catchment and rainfall in inches for 1924-25.	Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft. CATCHM	M. c. ft. ENT).	M. c. ft.		Inches.			
22,017	..	..	....	..	..	48	Observations stopped since 1923.
21,933†	22,360	18,174	Nigurghar 113·32 Shirgaon 190·95 Apti 73·54 Hirdushi 140·25 Rajuri 153·00 Karangaon 186·75 Purakhurd 125·50 Kari 68·25	131·44	·69	49	
90,755	80,020	70,756	Bhordi 173·41 Torna 60·61 Rajgad 114·61 Bhatghar Bungalow. 29·90 Bhatghar village. 30·84 Shirgaon 190·95 Nigurghar 113·32 Margasne 40·97 Khed Shivapur. 34·00 Purandhar 13·17 Vir 14·70 Apti 73·54 Hirdushi 140·25 Waroti 183·00 Bhutanda 157·50 Chandavna 161·05 Kamra 99·50 Mhashivli 64·50 Kondgaon 104·05 Sandaswadi 89·50 Rajuri 153·00 Karangaon 186·75 PuraKhurd 125·50 Kari 68·25 Natambi 82·00 Nasrapur 55·75 Kamthadi 35·83 Bhor 30·27 Khandala 20·07	90·58	0·48	50	Figures for 1888 to 1904 with the exception of those for 1900 are also available.
16,905	17,207	14,574*	Dhom 30·22	30·22	..	51	Figures of proportion of run-off to rainfall being misleading have been omitted. Courses that lead to such results are being investigated.
CATCHM	ENT).						
11,456	4,214	6,982	Khatgun 18·67 Neher 16·62 Vaduj 9·64	14·98	·73	52	Gauging started in July 1905. The site is below Nehr tank at Khadgaon weir.
CATCHM	ENT).						
171,403	179,208	131,515	Helvak 203·75 Malcolmpeth. 215·47 Bamnoli 90·25 Sonat 108·12 Mahableshwar. 215·87	166·09	·95	53	Gauging started in in July 1902.

taken and as there were changes in them from the last taken, new tables utilised in calculating the discharges in question.

STATEMENT

Serial No.	Project Number as per map.	Name of river and site.	1918.	1919.	1920.	1921.	1st January 1922 to 30th April 1922.
			M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						DECCAN	(GHAT
54	..	Krishna at Khodsi weir ..	23,138	74,698	..	57,314	345
55	..	Krishna at Kusgal ..	186,020	509,502	452,823	286,017	1,278
56	13	Harankashi at Ajra ..	20,023	32,842	31,114	34,334	148
57	13 & 14	Ghataprabha at Hadlag ..	20,019	30,830	29,195	34,459	255
58	13 & 14	Ghataprabha at Gokak or Dhupdal Weir.	60,896	99,345	92,537	111,002	389
59	13 & 14	Tamraparni at Rajgoli* ..	12,306	24,358	23,154	20,213	208
60	14	Markandya at Shirur ..	998	3,006	4,477	5,985	110
61	15	Malaprabha at Bhutewadi ..	3,807	10,397	11,726	12,036	66
62	15	Malaprabha at Khanapur ..	5,975	15,545	16,933	18,883	146
63	16	Wardha at Banwasi ..	21,053	38,062	33,102	35,647	121
64	22	Dharma near Shringeriwad ..	876	1,288	871	1,277	..
65	21	Kumudvati River, Bellur village and Madag Tank.**	6,025	9,373	9,981	8,654	146

* During the year under review fresh cross and longitudinal sections were of areas and wetted perimeters were prepared and

V—*concld.*

1st May 1922 to 30th April 1923.	1923-24.	1924-25.	Rain gauge stations within the catchment and rainfall in inches for 1924-25.	Total average rainfall for 1924-25.	Proportion of run-off to rainfall.	Serial No.	Remarks.
M. c. ft.	M. c. ft.	M. c. ft.		Inches.			
CATCHMENT.							
91,701	57,545	54,252	Mahableshwar. 199·98 Panchgani 38·38 Wai 20·50 Kas 111·89 Medha 49·09 Satara 31·66 Rewadi 17·73 Koregaon 19·88 Dhome 30·22 Bamnoli 90·25	60·95	·20	54	The discharge is observed for the period from 1st May 1924 to 30th April 1925.
503,873	726,146	579,705	Mahableshwar 215·87 Panchgani 38·41 Wai 22·09 Satara 33·21 Vaduj 9·64 Karad 19·95 Miraj 17·30	50·92	·66	55	
39,969	48,906	36,172	Ajra 84·26 Gawasa 118·55 Amboli 251·52	151·44	..	56	Figures of proportion of run-off to rainfall being misleading have been omitted. Courses that lead to such results are being investigated.
41,618	52,907	41,169	Adkur 81·72 Pumdra 175·73	128·72	..	57	Do. Figures are also available from 1887 to 1891 and also for 1903 and 1904.
113,589	167,745	126,806	Amboli 251·52 Pendra 175·73 Chandgad 109·33 Ajra 86·20 Tambulwadi. 75·47 Gad Hinglaj 41·26 Benalli 26·49 Sankeshwar 30·17 Hukeri 22·05 Hattargi 17·36	83·56	0·61	58	†† Length of catchment area is 70 miles. Figures for 1891 to 1904 are also available.
30,320	42,130	33,940	Wagotra 173·82 Patne 129·57 Chandgad 110·63 Rajgoli 41·15 Tambulwadi. 75·47	106·13	·67	59	Gauging started in August 1902.
5,628	6,957	5,894	Benali 26·49 Turmuri 49·33 Belgaum 49·76	41·86	·37	60	
12,725	22,613	16,083*	Kumkumbi 179·10 Jamboti 118·08	148·59	·37	61	
19,031	34,610	22,107	Kumkumbi 179·10 Jamboti 118.08 Khanapur 69·22	122·13	·43	62	
28,953	67,821	44,610	Sirsi 106·65 Siddapur 128·76	117·70	·37	63	Gauging started in 1908.
1,527	4,477	2,191	Yekambi 92·14	92·14	0·17	64	Figures for the years 1882 to 1886 are also available. The catchment area is 10 miles in length.
6,454	20,972	17,413	Kalwani 66·35	60·35	0·23	65	Figures are also available from 1869 to 1894. **Length of catchment area of Madag tank is 46 miles.

taken and as there were changes in them from the last taken, new tables and utilised in calculating the discharges in question.

STATEMENT

Observed Annual Discharges

The results are obtained from the observations on the quantities of
the years noted. The proportion the discharge obtained bears
the number of rain gauge stations are far too few to
The object of the return is to show the supply of
area in situations similar to

Serial No	Name of Tank.	Contents of the Tank.	Catchment area.	Length of Catchment area.	1905.
		M. c. ft.	Sq. miles.	Miles.	M. c. ft.
1	Muvalia Tank ..	237	30	10	..
2	Wangroli Tank ..	212	13	6	§
3	Saint Tank ..	135	12·5	8	..
4	Savli Tank ..	172	11	4	..
5	Futelao Tank ..	56	7	4	..
6	Nagrama Tank ..	97	1·5	1½	..
7	Tranja Tank ..	80	*Nil.*	*Nil.*	..
8	Mhaswad Tank ..	2,601	480	35	1,149
9	Lake Fife at Khadakvasla.	3,955	196	24	..
10	Ekruk Tank ..	2,616†	159	15½	281
11	Lake Beale ..	7,763	156	25	..
12	Bhandardara Dam (Lake Arthur Hill.)	10,531	47	9½	..
13	Lake Whiting on Yelwandi at Bhatghar.	5,313	128	24	26,460*
14	Chankapur Tank ..	1,548	100	10½	..
15	Ashti Tank ..	1,419	92	14½	162
16	Nehr Tank ..	(*a*)107	59·5	10	58
17	Maini Tank ..	(*b*)75	52	8½	50
18	Bhatodi Tank ..	154	44	30	65
19	Dambal Tank ..	114	43	7½	46

Note.—The observations made pertain to
N.B.—During the years marked
× Discharge observed
† The discharge
§ The tank was under construction and

(*a*) Original contents of 490 M. Cft. are now reduced by silt deposit as ascertained by the recent silt survey.

VI.

from Catchment Areas.

water stored in the tanks and discharged over their waste weirs during
to the recorded rainfall is not given in this statement, because
admit of this calculation being made accurately.
water that may be expected from a given catchment
those under observation.

Run-off or discharge observed.								
1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
GUJARAT								
577*	212	337*	749*	1,189*	*Nil.*	243*	1,352*	135
481*	170	350*	75	141	*Nil.*	323*	343*	119
..	..	..	..	125	*Nil.*	150	372*	188*
..	..	..	45	85	*Nil.*	161*	219*	72
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	97	28	*Nil.*
..	..	..	..	..	..	74	48	*Nil.*
DECCAN.								
2,647	2,631	4,185*	5,324*	13,939*	3,936*	1,278	2,143	2,288
41,207*	72,086*	67,355*	62,324*	53,056*	35,976*	52,264*	54,800*	78,821*
2,029	1,564	1,597	3,811*	×	769	606	1,238	2,208
..	..	..	..	24,054*	16,358*	28,019*	41,044*	30,559*
..	..	..	..	..	..	..	..	..
30,601*	43,780*	40,086*	35,907*	38,185*	21,073*	34,656*	35,229*	45,412*
..	..	..	..	..	2,288*	9,845*	9,455*	8,634*
1,408	208	943	868	4,545*	635	65	361	790
398	1,489	802	840	1,724	1,863	1,305	1,137	,085
1,118	1,839	3,429	2,158	3,214	319	122	676	3,041
309*	1,199*	288*	3,139*	2,320*	42	13	224*	1,452*
148*	173	56	112	239	8	232	95	13

the period 1st May to 30th April following.
(*) the tank overflowed.
not reliable.
figure is doubtful.
no observations could be taken.

(*b*) Original contents of 115 M. Cft. are now reduced by silt deposit as ascertained by the recent silt survey.

STATEMENT

Serial No.	Name of Tank.	Contents of the Tank.	Catchment area.	Length of Catchment area.	1905.
		M. c. ft.	Sq. miles.	Miles.	M. c. ft.
					DECCAN
20	Mukti Tank ..	(*a*) 324	34·20	10	130
21	Waghad Tank ..	606	29	6½	1,653*
22	Pathri Tank ..	407	27·50	9½	..
23	Muchkundi Tank ..	705	26	7	70
24	Shirsuphal Tank ..	365	23·50	6½	46
25	Bhadalwadi Tank ..	222	23	7½	97
26	Asundi Tank ..	74	23	3½	60
27	Parsul Tank ..	119	17·75	9½	32
28	Wadshivne Tank ..	203	14·5	5	..
29	Mhaswa Tank ..	172	13·40	5	129
30	Medleri Tank ..	58	·11	4½	34
31	Talwada Tank ..	116	10·50	6	55
32	Shedbal Tank ..	(*b*) 29	7·81	3½	..
33	Koregaon Tank ..	84	7	4½	8
34	Hartala Tank ..	135	6·80	2½	*Nil.*
35	Khirdi Sathe Tank ..	91	6·45	2½	8
36	Mavinkop Tank ..	43	6·25	3½	..
37	Gadikeri Tank ..	34	4·68	2¾	..
38	Killedkeri Tank ..	22	1·56	1½	..

Note.—The observations made pertain to
N.B.—During the years marked
× Discharge observed
‡ The discharge

VI—*contd.*

Run-off or discharge observed—*contd.*								
1906.	1907.	1908.	1909.	1910.	1911..	1912.	1913.	1914.
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
—*concld.*								
1,474*	146	59	181	1,051*	3	73	123	348*
2,087*	3,199*	2,817*	2,850*	1,942*	1,894*	2,868*	2,612*	5,827*
..	..	515*	488*	950*	383*	34	240	836*
78	..	..	191	60	47	..	..	36
306	113	75	161	198	24	32	47	179
600*‡	55	207	125	191	132	84	91	126
122	115	31	40	Not observed.	7	164	183	210
185*	116	41	137	405*	48	64	340*	829*
..	..	97	357*	55	24	24	95	52
649*	703*	138	696*	309*	*Nil.*	104	×	348*
95	85*	56	24	501	10	61	42	14
4	3	*Nil.*	*Nil.*	56	9	70	76	151
..	..	..	..	..	×	×	×	×
215*	73	61	74	238*	94	19	33	181*
41	71	40	48	94	*Nil.*	17	79	287*
39	27	13	19	127*	39	26	47	70
..	..	..	..	..	..	..	..	..
..	..	..	..	..	1	322	25	771
..	..	..	..	..	14	115	23	109

the period 1st May to 30th April following.
(*) the tank overflowed.
not reliable.
figure is doubtful.

STATEMENT

Observed Annual Discharges

The results are obtained from the observations on the quantities of
the years noted. The proportion the discharge obtained bears
the number of rain gauge stations are far too few to
The object of the return is to show the supply of
area in situations similar to

Serial No.	Name of Tank.	Run-off or				
		1915.	1916.	1917.	1918.	1919.
		M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						GUJARAT
1	Muvalia Tank ..	105	750*	3,535*	40	3,018*
2	Wangroli Tank ..	2	89	481*	3	184
3	Saiat Tank ..	*Nil.*	*Nil.*	420*	1	130*
4	Savli Tank ..	37	56	137	1	131
5	Futelao Tank ..	....	....	112	1	145*
6	Nagrama Tank ..	*Nil.*	*Nil.*	23	*Nil.*	*Nil.*
7	Tranja Tank ..	*Nil.*	*Nil.*	64	*Nil.*	*Nil.*
						DECCAN.
8	Mhaswad Tank ..	4,039*	×*	2,010*	388	5,334*
9	Lake Fife at Khadakwasla.	38,622*	35,483*	48,845*	17,357*	48,887*
10	Ekruk Tank ..	3,658*	6,117*	3,803*	253	2,346
11	Lake Beale ..	19,158*	21,893*	34,113*	9,063*	27,572*
12	Bhandardara Dam (Lake Arthur Hill).	....	....	....	....	....
13	Lake Whiting on Yelwandi at Bhatghar.	26,781*	23,812*	42,512*	19,925*	42,673*
14	Chankapur Tank ..	3,797*	5,110*	7,392*	1,346*	9,732*
15	Ashti Tank ..	1,684*	1,614*	1,649*	284	1,818*

Note.—The observations made
N.B.—During the years
× Discharge
‡ The discharge

VI—*contd.*

from Catchment Areas—contd.

water stored in the tanks and discharged over their waste weirs during
to the recorded rainfall is not given in this statement, because
admit of this calculation being made accurately.
water that may be expected from a given catchment
those under observation—*contd.*

discharge observed—*contd.*					Serial No.	Remarks.
1920.	1921.	1922.	1923-24.	1924-25.		
M. c. ft. —*concld.*	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.		
61	3,643*	304*	142	253*	1	Catchment area is hilly, valleys or low lands being cultivated. The tank overflowed.
80	500*	24	*Nil.*	61	2	The catchment area consists of brownish black soil and has a steep fall favourable to a good run-off. During the year the tank received about ¼ run-off.
25	500*	111	*Nil.*	?5	3	The tank received very little run-off.
67	203	51	7	108	4	The tank received more than ¼ run-off.
3	229*	16	5	5	5	The tank was completed in November 1916 and observations for the flow into the tank were taken in 1917 for the first time. The tank received very little run-off during the year.
Nil.	2	..	*Nil.*	....	6	These works were completed in 1909. In 1910 and 1911 the tanks were empty. These tanks are fed by means of supply channels from the Matar Drainage Channel, which has a catchment area of 13 square miles and the length of the catchment basin is 10 miles. No run-off. These tanks remained empty during the year.
Nil.	24	..	*Nil.*	....	7	
1,091	2,688	437	2,401	1,092	8	Figures are also available for 1899 to 1904.
46,695*	36,821*	48,048*	45,436*	42,296*	9	
154	1,302	267	1666·52	1394·68	10	Original contents of 3,310 m. c. ft. is now reduced by silt deposit as ascertained by recent silt survey. Figures are also available for 1899 to 1904.
21,381*	25,750*	29,189*	25,032*	21,259*	11	Ghat catchment.
..	..	..	..	19,380*	12	This appears for the first time in 1924.
37,728*	35,736*	42,130*	40,768*	24,943*	13	Figures are also available from 1888 to 1904.
1,448*	4,360*	6,006*	3,246*	3,430*	14	Ghat catchment.
188	350	23	283·26	1121·33	15	Figures are also available for 1899 to 1904.

pertain to the period 1st May to 30th April following.
marked (*) the tank overflowed.
observed not reliable.
figure is doubtful.

STATEMENT

Serial No.	Name of Tank.	Run-off or discharge				
		1915.	1916.	1917.	1918.	1919.
		M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						DEC C A N
16	Nehr Tank ..	1,243	1,719*	468	415	386
17	Maini Tank ..	1,331	6,956*	2,029*	650*	500
18	Bhatodi Tank ..	1,524*	2,243*	1,844*	..	2,712*
19	Dambal Tank ..	223*	426*	497*	226*	110
20	Mukti Tank ..	184	208*	151*	1	680*
21	Waghad Tank ..	1,991*	2,741*	3,156*	1,675*	4,900*
22	Pathri Tank ..	979*	1,396*	866*	50	363
23	Muchkundi Tank ..	172	×*	102	112	283
24	Shirsuphal Tank ..	213	238	307*	*Nil.*	246
25	Bhadalwadi Tank ..	156	355*	232*	33	305*
26	Asundi Tank ..	228*	493*	1,178*‡	170	188*
27	Parsul Tank ..	341*	676*	176*	*Nil.*	483*

Note.—The observations made
N.B.—During the years
× Discharge
‡ The discharge

VI—*contd.*

observed—*contd.*					Serial No.	Remarks.
1920.	1921.	1922.	1923-24.	1924-25.		
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.		
—*contd.*						
..	421	223	259·58	385·88	16	Original contents of 490 m. c. ft. is now reduced by silt deposit as ascertained by the recent silt survey. Figures are also available for 1899 to 1904.
..	710	381	91·91	117·61	17	The heavy discharge in 1916 was due to the abnormally heavy rainfall of 52·99 inches during that year which was the highest on record since 1899 and 20·88 inches more than the previous maximum rainfall in 1912. Figures are also available for 1899 to 1904.
						Original contents of 115 m. c. ft. is now reduced by silt deposit as ascertained by the recent silt survey.
..	..	..	..	..	18	Figures are also available for 1899 to 1904.
33	195	37	27	184	19	The tank filled in June. The rainfall was 30·26 inches. Figures are also available for 1899 to 1904.
16	254	157	342·69	727·69*	20	(a) Capacity reduced from 342 m. c. ft. owing to silt in tank. Figures are also available for 1899 to 1904. Waste weir overflowed from 21st September to 31st October 1924.
1,736*	2,166*	2,148*	2,638*	2,191*	21	Ghat catchment. Figures are also available for 1900 to 1904.
132	258	62	585·30*	906·97*	22	Waste weir overflowed.
382	332	102	28	65·19	23	In 1916 the tank overflowed for the first time since its construction. The maximum height of flood was 6 feet over the crest of weir. The tank did not fill in the year under report. Rains fall 13·21 inches. Figures are also available for 1899 to 1904.
188	55	130	1	76	24	Figures are also available for 1899 to 1904.
63	139	23*	—12	44	25	
51	124*	696*	108	128*	26	Deccan catchment. The tank filled in July. The waste weir overflowed in July and again in October. Rainfall 25·97 inches. Figures are also available for 1899 to 1904.
Nil.	472*	..	334*	212*	27	Figures are also available for 1899 to 1904.

pertain to the period 1st May to 30th April following.
marked (*) the tank overflowed.
observed not reliable.
figure is doubtful.

STATEMENT

Serial No.	Name of Tank.	Run-off or discharge				
		1915.	1916.	1917.	1918.	1919.
		M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.
						DECCAN
28	Wadshivne Tank ..	81	213*	234*	36	180
29	Mhasva Tank ..	148	184	596*	63	202*
30	Medleri Tank ..	43	84	540*‡	56	233*
31	Talwada Tank ..	33	67	91	5	11
32	Shedbal Tank ..	×	×*	×*	15	..
33	Koregaon Tank ..	225*	298*	164*	15	30
34	Hartala Tank ..	621*	376*	100	*Nil.*	42
35	Khirdi Sathe Tank ..	79	77	75	*Nil.*	102
36	Mavinkop Tank ..	....	....	..	..	..
37	Gadikeri Tank ..	53	165*	108*	91*	52
38	Killedkeri Tank ..	33	72*	42*	14	37

Note.—The observation made

N.B.—During the year

×Discharge observed

‡ The discharge

VI—*concld.*

observed—*concld.*					Serial No.	Remarks.
1920.	1921.	1922.	1923-24.	1924-25.		
M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.	M. c. ft.		
—*concld.*						
116	70	36	89·04	65·78	28	
56	187	106	85·40	173·61	29	The F. S. L. of the tank was increased from R. L. 151·00 to R. L. 152·00 in March 1915 previous to which the contents of the tank were 158 m. c. ft. Figures are also available for 1899 to 1904.
68	43	76	40	124*	30	The tank filled in June. Waste weir overflowed in June and again in August. Rainfall 25·34 inches. Figures are also available for 1899 to 1904.
24	22	..	18·89	53·11	31	The work appears for the first time in 1902.
28	24	22	..	11·92	32	(*b*) Corrected in 1920. No observations taken in 1923-24. Rainfall 13 inches.
..	34	5	152·11*	90·46	33	Figures are also available for 1899 to 1904.
2	28	27	32·47	....	34	The tank did not fill. Figures are also available for 1900 to 1902 and for 1904.
Nil.	49	..	25	33	35	
..	..	29	97*	259*	36	The work appears for the first time in 1922 The tank filled. Waste weir overflowed from July to October. Rainfall 55·92 inches. The rain gauge is not situated in the C. A.
..	..	12	51	69*	37	The tank filled in August. Waste weir overflowed in August and September. Rainfall 33·09 inches.
..	..	..	..	....	38	Observations discontinued from 1922.

pertain to the period 1st May to 30th April following.

marked (*) the tank overflowed.

not reliable.

figure is doubtful.

STATEMENT

Statement of Extraordinary Flood

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq. miles.	Miles.	
1	Hathmati River at Himatnagar (Ahmednagar, Idar State).	524	40	158,112
2	Lilka River in mile 11 of the Dhandhuka-Gogha Road.	50	14	20,000
3	Khara Ghore Tank in the Ahmedabad District.	43	17	18,741
4	Khandia River in mile 6 of the Godhra-Shera Road, Godhra Taluka.	35	8	15,963
5	Nala in mile 7 of the Ahmedabad-Dholka Road.	25	6	7,500
6	Chandrabhaga Nala on the Ahmedabad-Sabarmati Road.	23	8	9,200
7	Luni River on the Talod-Harsol Road, Prantij Taluka.	12	6	11,700
8	Salat Tank Nala ..	12·5	8	10,955
9	Karjan River at Nandod, Rajpipla State ..	540	27	386,813
10	Malan River at Mahuva in Kathiawar ..	116	23¼	69,066
11	Khari River at Palitana, Kathiawar ..	88	14½	111,788
12	Navali River at Kundla in Bhavnagar State ..	15	6¾	48,180

Note (1) :—*Mahi River.*—The flood level in the Mahi River had risen to 56 feet on 27th July 1913, *Panam River.*—On 27th July 1913 the flood had risen about 40 feet above "zero of gauge".

VII.

Discharges from Catchment Areas.

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
GUJARAT.			
Hilly and woody	0·467	3rd August 1909.	
Goradu and black ..	0·62	24th July 1905.	
Black and sandy soil ..	0·50	Do.	
Hilly with murum	0·70	Do.	
Goradu, sandy	0·50	Do.	
Do.	0·62	Do.	
Murum and laterite	1·50	15th July 1905.	
Flat consisting of cultivated fields and grass lands.	1·32	19th July 1913 ..	The earthen dam breached.
Hilly area with trees, shrubs, etc.	1·11	27th June 1913 ..	20·36 inches of rain in 24 hours ending at 8 a.m. of the 28th June 1913 including the period of maximum fall of 5·24 inches in 2 hours, with an hourly intensity of 2 inches and 62 cents.
Up to first 8 miles length the catchment surface is barren and hilly and the remaining is flat cultivable lands.	0·92	12th June 1913 ..	According to Mahuva dispensary gauge. Inches. On 11th from 15 to 24 hours .. 7·10 On 12th ,, 0 to 2 ,, .. 4·65 ,, ,, 2 to 8 ,, .. 1·25 Total .. 13·00
Flat agricultural lan devoid of trees and bushes.	1·98	Do. ..	20 inches of rain in 24 hours on 12th June 1913 and 15 inches in 6 hours on 15th June 1913 at Palitana gauge.
Barren rocky surface ..	4·88	Do. ..	According to Kundla dispensary gauge. Inches. On 11th from 16 to 22 hours 5·69 ,, ,, 22 to 23 ,, .. 4·00 ,, ,, 23 to 24 ,, .. 7·00 On 12th ,, 0 to 8 ,, .. 3·74 Total .. 20·43

i.e., about 16 feet above the section line recorded in the Executive Engineer's office.

Watrak River.—On 27th July 1913 the flood had risen about 40 feet above "zero of gauge"

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Acres.	Miles.	
13	Nala below Wangroli Tank, Thasra Taluka.	600	1	816
14	Nala below Savli Tank, Kapadvanj Taluka.	170	0·5	345
				DECCAN
		Sq. miles.		
15	Godavari at Kopargaon	2,880	60	172,200
16	Godavari at Nandur-Madhmeshvar ..	1,050	48	179,889 196,187 120,168
17	Godavari at Gangapur ..	145	18	23,396 32,547 33,704
18	Ghataprabha at Dhupdal Weir	1,080	70	126,567 112,240 144,344 218,500
19	Girna, near Malegaon, Taluka Malegaon, Nasik.	1,064	....	179,318
20	Panjhra, near Madhi, Taluka Amalner, Khandesh.	1,057	....	184,959
21	Panjhra, near Nathalod, Taluka Dhulia, Khandesh.	802	....	177,018
22	Panjhra, near Dhulia, Taluka Dhulia, Khandesh.	714	....	172,037 334,500
23	Panjhra at Pankheda	52	10	17,764 19,966 20,603
24	Mula and Mutha Rivers at Jamsetji Bund near Poona	864	36	188,934
25	Kumudwati River	540	46	....
26	Aner at Ganpur	502	35	169,168
27	Kukari at Shirapur	464	40·5	63,511 59,543
28	Vardha at Banvasi	444	16	55,519 36,218
29	Musam, near Malegaon, Taluka Malegaon, Nasik.	372	....	58,052
30	Koyna at Helwak	359	40	104,877 96,410 104,016 132,334 94,356 138,370 84,696
31	Kadwa at Palshed	314	19½	58,583 26,411
32	Ghod at Nirgudsar	284	35	54,116 66,352
33	Panjhra near Nandwan, Taluka Pimpalner, Khandesh.	283	....	133,068 37,114

VII—*contd.*

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
GUJARAT—*contd:*			
Goradu cultivated ..	1·36	23rd July 1905.	
Goradu grass land ..	2·02	Do.	
(GHAT CATCHMENT).			
Bounded by Ghats (4,000 to 5,000) falling abruptly to murum and black soil plain (2,000).	0·093	27th July 1912 ..	The H. F. L. is chisel cut on the masonry pillar of the ferry boat on Kopargaon side approaches.
Ghat Catchment ..	0·17	17th August 1907.	
	0·184	22nd July 1912.	
	0·12	18th July 1914.	
Rock, murum, black and reddish soil.	0·25	13th September 1916.	
	0·35	6th October 1917.	
	0·36	27th July 1919.	
Ghat Catchment ..	0·18	15th July 1900.	
	0·16	4th August 1907.	
	0·267	23rd July 1912.	
	0·314	6th August 1914 ..	Greate flood ever recorded since the construction of the weir, standing 7·5 feet above crest of weir for 3½ hours. Flood level on gauge was 29·5 feet on 6th August 1914 equivalent to R. L. 2015·5.
Rocky in the first reach, murum in the second and black soil in the last, Ghat Catchment.	0·26	Flood of 1896.	
	0·27		
	0·29		
Do. ..	0·83	Do.	
	0·73	27th June 1914 ..	The discharge of this flood is estimated, and as such is an approximate figure.
Half the catchment area in cultivable soil and the rest hilly tracks composed of murum and boulders.	0·53	6th September 1916.	
	0·59	27th July 1919.	
	0·61	30th August 1924.	
....	0·33	30th July 1896.	
Hilly tracks ..	0·1280	16th July 1882.	
Ghat Catchment ..	0·52	22nd July 1905.	
	0·20	16th September 1914.	
Ghat Catchment ..	0·20	4th August 1914.	
	0·19	26th October 1916.	
Hilly country consisting wholly of forest land of hard ground.	0·12	5th August 1916.	
Rocky in the first reach, murum in the second and black soil in the last, Ghat Catchment.	0·24	Flood of 1896.	
Steep hilly ground of the ghat description with much scrub jungle throughout.	0·45	14th July 1903.	
	0·42	24th July 1905.	
	0·45	2nd October 1910.	
	0·57	22nd July 1912.	
	0·41	19th July 1913.	
	0·59	18th July 1914.	
	0·37	29th June 1915.	
	0·25	5th July 1918.	
Partly hilly ..	0·13	13th September 1916.	
	0·27	27th August 1917.	
Ghat Catchment ..	0·36	26th October 1916.	
	0·73	29th August 1924.	
Rocky in the first reach, murum in the second and black soil in the last, Ghat Catchment.	0·204	Flood of 1896.	

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq. miles.	Miles.	DECCAN
34	Kukari at Edgaon ..	265	23	48,965 32,725 62,916
35	Tamraparni at Rajgoli ..	206	28	65,109
36	Lake Fife ..	196	24	81,270
37	Gunjawani at Mohori ..	183	24	35,719
38	Malaprabha at Khanapur ..	170	21	81,333
39	Malaprabha at Bhutewadi ..	126	17	13,064 43,419
40	Markandya at Shirur ..	165	24	107,703
41	Darna at Nandgaon ..	156	25	64,269 73,862
42	Bhima at Chas-Kaman ..	140	22	55,663 68,473
43	Ghataprabha at Hadlag ..	134	26	68,619 30,348
44	Lake Whiting ..	128	24	51,505
45	Tambdi and Girna ..	100	14½	165,102
46	Girna at Chankapur ..	100	10½	16,100 45,137
47	Kadwa at Karanjawan ..	96	12½	23,582 17,084 45,417
48	Harankashi at Ajra ..	94	14	22,083 20,422 46,504 68,520
49	Nira at Karanja ..	86	14	38,241 67,425 17,690 20,548
50	Krishna at Dhom ..	84	12½	17,548 25,572 26,337
51	Mina at Wadgaon ..	78	18½	45,477 42,507
52	Unanda at Wazerkhed ..	68	14	14,670 18,366 20,939
53	Karwa at Pimpalgaon ..	67	17	21,777
54	Nira at Apti (formerly called Nira at Natambi).	59	11½	32,375
55	Aundha Nala at Mukhne ..	52	18	25,188 44,418 6,713 6,468 13,754 13,786 18,290
56	Khandbara Tank on the Kan River ..	34	7	24,532
57	A small tributary of the Bedti River at the temporary bridge in mile 47 of the Karwar-Bellari Road.	20	8½	DECCAN
58	Raipur Tank on the Waghur River ..	700	24	47,795

VII—*contd.*

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
(GHAT CATCHMENT)—*contd.*			
Ghat Catchment ..	0·28	26th June 1913.	
	0·19	25th October 1916.	
	0·37	29th July 1919.	
Rocky in the first reach, murum and steep ground in the rest but country flat.	0·49	6th August 1914.	
....	0·641	24th July 1905 ..	The maximum run-off assumed for the design of the waste weir is ½ inch.
Ghat Catchment ..	0·30	27th June 1913.	
Rocky and steep throughout.	0·70	5th August 1914.	
Do. ..	0·16	3rd August 1916.	
	0·53	20th July 1923.	
Rocky for a small portion, murum and soil in the rest.	1·01	6th August 1914.	
Steep rocky hill sides murum slopes, rice field with a fair proportion of black soil fields.	0·64	16th August 1907.	
	0·74	20th July 1913.	
Ghat Catchment ..	0·62	19th July 1913.	
	0·76	31st July 1923.	
Rocky in the first reach, murum and steep ground in the rest.	0·79	6th August 1914.	
	0·35	29th July 1915.	
....	0·62	25th July 1905 ..	The maximum run-off assumed for the design of the waste weir is ⅝ inch.
Hilly, rocky and steep ..	2·56	22nd July 1912 ..	Gauged by increased volume in the tank; waste weir did not overflow.
Murum ..	0·25	15th August 1916.	
	0·66	14th August 1907.	
	0·38	5th August 1915.	
	0·28	21st August 1918.	
	0·73	27th July 1919.	
Rocky in the first reach, murum and steep ground in the rest, but country flat.	0·36	29th July 1915.	
	0·34	3rd August 1916.	
	0·77	20th July 1923.	
	1·23	25th July 1905.	
	0·69	2nd October 1910.	
Ghat Catchment ..	1·21	18th July 1913.	
	0·32	1st July 1915.	
	0·37	5th August 1916.	
Steep hilly country of the Ghat description with few trees.	0·32	15th August 1916.	
	0·48	28th July 1921.	
	0·49	19th July 1923.	
	0·90	22nd July 1912.	
Ghat Catchment ..	0·84	26th October 1916.	
	0·33	5th August 1915.	
Murum and reddish soil ..	0·42	28th September 1917.	
	0·68	2nd October 1919.	
Rocky, murum, black and reddish soil.	0·50	5th September 1916.	
Ghat Catchment ..	0·85	24th July 1921.	
Rocky, murum, black and reddish soil.	0·75	2nd August 1909.	
	1·32	8th August 1910.	
	0·31	26th August 1917.	
Ghat Catchment ..	0·29	6th July 1918.	
	0·63	27th July 1919.	
	0·63	19th September 1921.	
	0·83	25th July 1923.	
Do. ..	1·92	6th August 1914.	
(DECCAN CATCHMENT).			
Rocky in the first reach, murum and soil in the rest.	0·11	29th September 1917.	

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq. miles.	Miles.	DECCAN
59	Mula at Tas ..	592	51	94,965 100,341 117,910
60	Bori ..	446	....	115,170
61	Seena at Hatwalan ..	446	27	63,420
62	Yerla at Yeralwadi ..	274	32	31,242
63	Sina River at iron bridge (Poona-Nagar Road).	150	17	58,117
64	Parmapada Tank on the Bori River ..	117	25	37,735
65	Bural, near Wazdara, Taluka Pimpalner, Khandesh.	87	....	17,596
66	Maini Tank—Wang River—a tributary of the Yerla.	52	8½ (The catchment area is 11½ miles at greatest breadth).	25,500 7,000 14,200 37,000 22,400
67	Valumba Nala at point where it crosses Nagar-Dhond Road in mile No. 14.	48	12·5	28,426
68	Bori, near Tingri, Taluka Malegaon, Nasik ..	43	....	64,637
69	Odal at Khadakozath ..	38	12	13,595
70	Muchkundi Tank ..	26	7	23,693
71	Nasardi River at Nasik ..	25	12	19,074 22,494
72	Nala near Vilad Railway Station, mile 9 of Nagar-Malegaon Road.	11	3·5	11,995
73	Jamphal Nala near Songir, Taluka Dhulia, Khandesh.	10	....	5,902
74	Sina Nala at Shendi on Nagar-Paithan Road..	9·5	6	8,104
75	Wazarya Nala near Nahalod ..	7	....	5,970
76	Banhole Nala ..	7	3½	3,235
77	Nala No. 15 on Palkhed Canal ..	2·5	2½	3,204
78	Dhomna Nala, Nasik Irrigation Division ..	1·50	1·25	2,192
79	Ekruk Tank ..	For the great	flood at Ekruk,	reference may

VII—*contd.*

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
(DECCAN CATCHMENT)—*contd.*			
Black and reddish soil and rocky near hills.	0·25	26th June 1913.	
	0·26	18th July 1914.	
	0·31	26th October 1916.	
Local Deccan Catchment ..	0·403	18th July 1889.	
Black Khalga soil, murum and rock near hills.	0·22	23rd June 1913.	
Hilly at the sides with deep black and brownish black soil in the valley between.	0·18	10th September 1916.	
Ordinary soil ..	0·60	19th August 1910 ..	Water crossed main roads, city side of bridged 9 inches in depth.
Rocky in the first reach, murum and soil in the rest.	0·17	6th October 1917.	
Local Deccan Catchment ..	0·31	Flood of 1896.	
....	0·76	23rd and 24th Sept. 1874.	Water rose to 4·5 feet above crest of weir.
....	0·42	22nd September 1885.	
Fan-shaped catchment, fringed on one side by hills standing about 800 feet above tank level. Soil principally of the black Deccan variety.	1·11	October 1880 ..	This very extraordinary flood is the greatest of which anything is known. It topped the waste weir by 6 feet.
....	0·66	12th September 1899 ..	This flood rose 3·9 feet above wasteweir.
Most in murum not Ghat Catchment 2,200 feet above sea level.	0·91	31st August 1910 ..	This flood rose 2 or 3 feet higher, in Walki village 3¼ miles below roads, than ever previously and washed away 20 or more houses and damaged the Police Lines.
Local Deccan Catchment ..	2·34	Flood of 1896.	
Murum, red and black soil ..	0·55	12th September 1916.	Greatest height was 15·95 feet, giving mean area of 2,214 sq. feet.
Partially hilly ..	1·41	2nd November 1916 ..	The discharge given is for the highest flood.
Murum, earth, etc. ..	1·18	13th June 1909.	
	1·39	1st October 1910.	
Ordinary soil (small hillocks) ..	1·60	19th September 1910 ..	The Camp of R. D. Fusiliers was washed away.
Local Deccan Catchment ..	0·92	Flood of 1896.	
Basin-shaped with hills 500 feet. ..	1·30	31st August 1910 ..	The flood damaged a large part of Shendi village which had not before been reached by a flood.
....	0·79	27th June 1914 ..	The discharge of this flood is estimated, and as such is an approximate figure.
Murum, black and reddish soil ..	0·72	6th September 1916.	
Black soil and murum ..	1·98	13th June 1909.	
Hilly and flat country with rock, murum and soil at surface.	2·26	14th June 1908.	

be made to the statement on page 55.

STATEMENT

No.	Name of Stream.	Catchment area.	Length of Catchment area.	Discharge in cusecs.
		Sq.-miles.	Miles.	
				GODAVARI
80	Deo Nala at Aqueduct No. 3 on the Godavari Right Bank Canal.	135	24	49,555
81	Kolgaon Nala at Aqueduct No. 7 on the Godavari Right Bank Canal.	110	18·5	65,976
82	Kat Nala at Aqueduct No. 15 ..	45	8	13,210
83	Dambar Nala at Aqueduct No. 4 on the Godavari Right Bank Canal.	20	7	35,062
84	Nala at mile 19—684 feet of the Godavari Right Bank Canal.	2·5	1·5	2,625
				GODAVARI
85	Nala No. 47 at mile 47—798 feet, Aqueduct No. 23 on Godavari Left Bank Canal.	72·75	17·5	47,812
86	Nala No. 26 at mile 24—2,837 feet, Aqueduct No. 12 on Godavari Left Bank Canal.	35·5	15	14,233
87	Nala No. 2 mile 1—1,300 feet, Culvert No. 1-B on Godavari Left Bank Canal.	12·8	6·25	16,203
88	Nala No. 32 ..	0·4	1	762
89	Nala No. 39 ..	1	1·5	1,980
				PRAVARA
90	Lendi Nala at mile 4 of Pravara Left Bank Canal.	8	5	7,450
91	Nala No. 37	0·06	1·5	380·3

VII—*concld.*

Nature of Catchment.	Rate of Run-off, inches per hour.	Date of Flood.	Remarks.
RIGHT BANK CANAL.			
Ordinary Deccan, rises in fort hills.	0·57	1st October 1910.	
Ordinary flat, Deccan plain catchment, Nala rises in fort hills.	0·93	Do.	
Soil and soft murum below ..	0·45	23rd June 1915.	
Flat and devoid of trees, red soil and murum on surface.	2·70	1st October 1910.	
Flat cultivated land of light soil with murum near surface.	1·04	12th June 1910.	
LEFT BANK CANAL.			
Ordinary Deccan catchment, rising in small hills.	1·02	1st October 1910.	
Mostly black soil, rises in fort hills near Manmad.	0·62	Do.	
Mostly black soil, rises in small hills near Vinchur.	....	Do.	
Soil on surface	2·98	26th June 1913.	
Do.	3·1	22nd June 1913.	
LEFT BANK CANAL.			
Soil	1·44	28th September 1910.	
Soil and murum below ..	0·61	23rd June 1913.	

ADDENDA TO STATEMENT VII.

AHMEDABAD DIVISION.

Description of the flood which occurred on the 3rd August 1909 on the Hathmati River at Himatnagar (Ahmednagar) in the Idar State.

The maximum intensity of the flood at the weir on the Hathmati River at Himatnagar (Ahmednagar) in the Idar State is calculated as .. .. 158,112 cusecs.

The length of weir .. .. 1,040 feet.

Height of water above crest—

Upstream .. .. 12·50 feet.
Downstream .. .. 5·75 feet.

Velocity of approach 6 feet per second.

The corresponding (maximum) rate of run-off per hour from the catchment is .. .. .. 0·467 inch.

The catchment area is .. .. .. 524 sq. miles.

The greatest length of the catchment area is .. 40 miles.

The catchment is both hilly and woody.

The rainfall measured at the weir site was 7 inches in 14 hours and at the centre of the catchment 10 inches. The rainfall was probably greater on the hills.

ADDENDA TO STATEMENT VII—*contd.*

SHOLAPUR DIVISION.

Statement of discharges from the Catchment of the Ekruk Tank as observed in September 1872.

Time of observation.	Level of water surface.	Quantity impounded between these levels in c. ft.	Quantity discharged from the tank over the two waste weirs.*	The total in-flow into the tank during period (total of columns 3 and 4).
1	2	3	4	5
19th September 8 P. M. ..	R. L. 203·00			
		190 536,000	....	190,536,000
20th „ 4 A. M. ..	„ 204·00			
		404,160,000	5,760,000	409,920,000
„ „ 6 A. M. ..	„ 206·00			
		439,944,000	124,200,000	564,144,000
„ „ 4 P. M. ..	„ 208·00			
		1,489,536,000	440,596,800	1,930,132,800
„ „ 10 P. M. ..	„ 214·00			

Time of observation.	The length of time.	Catchment area of tank.	Run-off in inches per hour over the catchment.	Remarks.
	6	7	8	9
19th September 8 P. M. ..				
	8 hours.		·064	
20th „ 4 A. M. ..				
	2 hours.		·553	
„ „ 6 A. M. ..				
	10 hours.		·153	
„ „ 4 P. M. ..				
	6 hours.	159 Square Miles.	·870	
„ „ 10 P. M. ..				

* The discharge is assumed to be mean of the discharge at two levels.

ADDENDA TO STATEMENT VII—*concld.*

POONA IRRIGATION DIVISION.

Statement of discharges from the Catchment of Lake Fife as observed on 24th July 1905.

(Area 196 sq. miles.)

Hour of observation.	Height of water in the tank above sills of outlet sluices.	Discharge from the waste weir at the hour of observation.	Mean discharge.	Discharge necessary to produce the rise of water in the tank at a uniform rate.	Total average discharge.	Remarks.
1	2	3	4	5	6	7
	Feet.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	
2 p.m.	32·35	48,259				
			52,188	29,181	*81,270	*As the rate of rise must have been high in the beginning of the hour, the discharge could not have been less than 48,259 + 29,081 = 77,340 cusecs.
3 p.m.	33·00	56,118				
			58,330	15,747	74,077	
4 p.m.	33·35	60,563				
			62,178	11,300	73,478	
5 p.m.	33·60	63,793				
			65,321	11,318	76,640	
6 p.m.	33·85	66,850				

DHARWAR IRRIGATION DIVISION.

Statement of discharges from the Catchment of the Dhupdal Reservoir as observed on the 5th August 1914.

(Area of Catchment 1,080 sq. miles.)

Hour of observation.	Height of water in the tank above sills of under sluices.	Discharges over the weir and through the under-sluices at the hour of observation.	Mean discharge.	Discharge necessary to produce the rise of water in the tank at a uniform rate.	Total average discharge.	Remarks.
1	2	3	4	5	6	7
	Feet.	Cusecs.	Cusecs.	Cusecs.	Cusecs.	
6 a.m.	27·70	146,797				
			148,057	1,697	150,354	
7 a.m.	27·80	150,518				
			153,362	2,546	155,908	
12 a.m.	27·95	156,205				
			157,158	1,273	158,431	
2 p.m.	28·00	158,111				
			160,111	2,715	162,826	
4 p.m.	28·10	162,111				

STATEMENT VIII.

Observed Deposit of Silt in Tanks.

Name of Tank.	Year.	Catchment area.	Original capacity.	Total silt deposit since construction.	Number of years since construction.	Rate of total deposit in million cubic feet per square mile per year.	Rate of deposit in million cubic feet per square mile for the year.	Remarks.
1	2	3	4	5	6	7	8	9
		Sq. miles	M. cft.	M. cft.				
Muchkundi Tank.	1906	26	703·59	57·85	22	0·10	..	Rate of silting since construction of the tank till 1906 was .. ·10 From 1906 to 1910 .. ·056 From 1910 to 1924-25 1·92
	1910			63·69	26	0·094	..	
	1924-25			113·70	41	0·10	1·92	
Gokak Basin.	1905	1,080	907·182 up to R. L. 2008, the crest of the permanent weir.	14·19	14	0·001	0·002*	Deposit up to 1921-22 = 196·18 M. cft. Deposit up to 1923-24 = 166·42 M. cft. *i.e.*, 29·76 M. cft. washed away. Deposit up to 1924-25 = 213·36 M. cft. *i. e.*, 46·94 M. cft. deposited in one year.
	1909			155·079	18	0·008	..	
	1910			173·59	19	0·0085	0·0171	
	1911			189·39	20	0·0088	0·0146	
	1912			207·97	21	0·0092	0·0172	
	1916			§189·97†	*25	§0·007036	§..‡	
	1917			§228·71	26	§0·0081	§0·036	
	1919			296·60	28	0·0098	¶0·0117	
	1920			192·02(*a*)†	29	0·00613	Nil	
	1921			196·18	30	0·00606	0·00385	
	1923-24			166·42(*b*)	32	0·0048		
	1924-25			213·36	33	0·006	0·043·	
Dambal Tank.	1896 to 1912	43	114·18	15·71	30	**0·017	‡‡ 0·0229	The first improvements to this old tank were carried out in 1876. The capacity was calculated in 1896 and found to be 114·18 M. cft.
	1912 to 1914			18·43	38		‡‡ 0·0316	
	1914 to 1923			20·08	47		‡‡ 0·0042	
	1923-24			20·22	48		‡‡ 0·0033	
Mavinkop Tank.	1909 to 1912	6·25	43·29	5·54	31	††0·078	‡‡ 0·295	The first improvements to this old tank were carried out in 1878. The capacity was calculated in 1909 and found to be 43·29 M. cft.
	1912 to 1914			6·27	36		‡‡ 0·0584	
	1914 to 1923			7·06	45		‡‡ 0·014	
	1923-24			7·32	46		‡‡ 0·042	

Note.—For the figures of silt deposits in Mainl, Dambal, Asundi, Pingli and Kelgeri Tanks, prior to 1906, reference may be made to the Statement printed at page 12 of the Report of 1906.

* Calculated on the silt deposited during 1903-04 and 1904-05.

† The difference between the total silt deposit till 1912 and that till 1916 is due to the fact that 18·00 M. cft. of silt was washed away from 1912 to 1916.

‡ This quantity cannot be ascertained as the observations have been made after 4 years since they were last undertaken.

§ Results reported not reliable.

¶ Average deposit per year per square mile or catchment since 1912. Figures for the years 1916 and 1917 are reported to be unreliable. Therefore those for the year 1912 have been taken in calculating this figure.

(*a*) The difference between the figures of the total silt deposit till 1919 and 1920 is due to the fact that 104·58 M. cft. of silt was washed away in 1920, and this gives a rate of ·097 M. cft per square mile for the year.

** Calculated from the year 1896 to 1923.

†† Calculated from the year 1909.

‡‡ For the periods mentioned in Column 2.

(*b*) The difference between the total silt deposit till 1921 and that till 1923-24 was due to the fact that 29·76 M. cft. silt was washed away during the period of two years.

STATEMENT IX.

Statement showing the results of observations on evaporation for the year 1924-25.

Name of tank.	Year and month.	Number of days on which observations were taken.	Daily average evaporation in feet.	Remarks.
1	2	3	4	5
Gokak Canal 1st Section and storage works at Dhupdal, Dharwar Irrigation Division.	May 1924 ..	31	0·036	
	June 1924 ..	..	..	On account of rains observations could not be taken from June to September 1924.
	July 1924 ..	..	..	
	August 1924 ..	..	..	
	September 1924 ..	..	..	
	October 1924 ..	22	0·014	Observations for evaporation were made as usual by means of the iron tank.
	November 1924 ..	26	0·017	
	December 1924 ..	31	0·019	
	January 1925 ..	31	0·019	
	February 1925 ..	28	0·023	
	March 1925 ..	31	0·024	
	April 1925 ..	30	0·027	
Kuchkundi Tank, Bijapur Division.	May 1924 ..	..	..	The tank was dry.
	June 1924 ..	15	0·029	Periods were selected in each month when there was no inflow or sluice discharge. The fall in water level during these periods was noted from which the daily rate of evaporation was calculated.
	July 1924 ..	13	0·017	
	August 1924 ..	7	0·026	
	September 1924 ..	13	0·025	
	October 1924 ..	26	0·027	
	November 1924 ..	29	0·025	
	December 1924 ..	28	0·021	
	January 1925 ..	13	0·019	
	February 1925 ..	..	..	The tank was dry.
	March 1925 ..	..	..	
	April 1925 ..	2	0·035	

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	Number of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Ekruk Tank* ..	May 1924 ..	27th to 30th ..	3	·06	·02	
	June 1924 ..	22nd to 25th ..	3	·04	·013	
	July 1924 ..	27th to 30th ..	3	·03	·01	
	August 1924 ..	3rd to 6th ..	3	·03	·01	
	September 1924 .	12th to 15th ..	3	·03	·01	
	October 1924 ..	5th to 8th ..	3	·025	·008	
	November 1924 .	15th to 18th ..	3	·03	·01	
	December 1924 .	11th to 14th ..	3	·03	·01	
	January 1925 ..	15th to 18th ..	3	·03	·01	
	February 1925 ..	16th to 19th ..	3	·04	·013	
	March 1925 ..	23rd to 26th ..	3	·05	·016	
	April 1925 ..	13th to 16th ..	3	·06	·020	
Pathri Tank* ..	May 1924 ..	19th to 22nd ..	3	·066	·022	
	June 1924 ..	23rd to 26th ..	3	·045	·015	
	July 1924 ..	20th to 23rd ..	3	·038	·013	
	August 1924 ..	17th to 20th ..	3	·045	·015	
	September 1924 .	14th to 17th ..	3	·018	·006	
	October 1924 ..	....	..		..	No accurate results were possible as there was inflow in the tank.
	November 1924 .	26th to 29th ..	3	·045	·015	
	December 1924 ..	17th to 20th ..	3	·030	·010	
	January 1925 ..	26th to 29th ..	3	·045	·015	
	February 1925 ..	15th to 18th ..	3	·04	·013	
	March 1925 ..	26th to 29th ..	3	·04	·013	
	April 1925 ..	20th to 23rd ..	3	·06	·02	

* Loss due to evaporation only observed in the iron tank 6′ × 6′ which is suspended and kept floating in the tank.

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	Number of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Ashti Tank* ..	May 1924 ..	....	..	..	..	No observations were taken during the period owing to high waves in the tank carried by the wind.
	June 1924 ..	....	..	..	..	
	July 1924 ..	....	..	..	..	
	August 1924 ..	11th to 14th ..	3	·05	·017	
	September 1924 .	14th to 17th ..	3	·040	·013	
	October 1924 ..	17th to 21st ..	4	·08	·02	
	November 1924 .	10th to 13th ..	3	·07	·023	
	December 1924..	13th to 16th ..	3	·05	·017	
	January 1925 ..	15th to 17th ..	2	·025	·013	
	February 1925..	15th to 18th ..	3	·050	·017	
	March 1925 ..	14th to 17th ..	3	·050	·017	
	April 1925 ..	16th to 19th ..	3	·07	·023	
Makti Tank*	May 1924 ..	....	..	..	..	No observations taken as there was inflow in the tank and the days were cloudy with slight drizzling
	June 1924	....	..	..	..	
	July 1924					

* Loss due to evaporation only observed in the iron tank 6′ × 6′ which is suspended and kept floating in the tank.

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	Number of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Mukti Tank —*contd.*	August 1924 ..	....	..	..	..	No observations were taken as there was inflow in the tank.
	September 1924.	....	..	..	..	
	October 1924 ..	....	..	..	..	
	November 1924 .	21st to 24th ..	3	·036	·012	
	December 1924..	21st to 24th ..	3	·048	·016	
	January 1925 ..	20th to 23rd ..	3	·045	·015	
	February 1925..	25th to 28th ..	3	·051	·017	
	March 1925 ..	28th to 31st ..	3	·060	·020	
	April 1925 ..	26th to 29th ..	3	·072	·024	
Laswa Tank.*	May 1924 ..	19th to 23rd ..	4	·173	·0432	
	June 1924 ..	....	..	..	..	Rain fell during the observations.
	July 1924 ..	16th to 20th ..	4	·075	·01875	
	August 1924 ..	....	..	..	..	No observations could be made due to rain.
	September 1924 .	....	..	..	..	
	October 1924 ..	....	..	..	..	As the evaporation tank got displaced by floods, no observations could be made
	November 1924.	....	..	..	..	Results unreliable.
	December 1924.	....	..	..	..	
	January 1925 ..	....	..	..	..	
	February 1925..	23rd to 27th ..	4	·060	·01725	
	March 1925 ..	....	..	..	..	No observations were taken.
	April 1925 ..	16th to 20th ..	4	·1385	·346	
Lake Fife at Khadakwasla	October 1924 ..	16th noon to 26th noon.	10	0·1200	0·0120	The observations were taken in an iron tank.
	Do. ..	26th noon to 31st noon.	5	0·0600	0·0120	In the month of May 1924, there was heavy wind and the tank used to sink therefore no observations were taken.
	November 1924 .	1st noon to 11th noon.	10	0·1500	0·0150	
	Do. ..	11th noon to 19th noon.	8	0·1500	0·0187½	

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date.	Number of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Lake Fife at Khadakwasla —*contd.*	November and December 1924	19th Nov. noon to 1st Dec. noon.	12	0·0400	0·0033⅓	
	December 1924	1st Noon to 11th noon.	10	0·1400	0·0140	
	Do. ..	11th noon to 22nd noon.	11	0·1800	0·0163 7/11	
	Do. ..	22nd noon to 31st noon.	9	0·1300	0·0144⅓	
	December 1924 and January 1925.	31st Dec. 1924 noon to 11th Jan. 1925 noon.	11	0·1760	0·0160	
	January 1925 ..	11th noon to 21st noon.	10	0·1650	0·0165	
	Do. ..	21st noon to 31st noon.	10	0·1900	0·0190	
	January and February 1925.	31st Jan. Noon to 6th Feb. noon.	6	0·1000	0·0166⅔	
	February 1925	6th noon to 16th noon.	10	0·1800	0·0180	
	Do. ..	16th noon to 28th noon.	12	0·1500	0·0125	
	February and March 1925.	28th Feb. noon to 4th March noon.	4	0·0500	0·0125	
	March 1925 ..	4th noon to 7th noon.	3	0·0600	0·0200	
	Do. ..	7th noon to 22nd noon.	15	0·2800	0·0186⅔	From 23rd March to 30th April 1925 Observations have not been taken as the tank sunk on account of the waves.
Lake Whiting	.. May 1924 ..	30th April (6 p.m.) to 31st May (6 p.m.).	31	0·93	0·03000	The observations were taken in an iron tank. The readings were observed in a Guage plate fixed to the iron tank immersed not in the lake porper but in one of the water supply howds on the north bank.
	November 1924.	31st Oct. (6 p.m.) to 30th Nov. (6 p.m.).	30	0·35	0·01166	
	December 1924.	30th Nov. (6 p.m.) to 31st Dec. (6 p.m.).	31	0·62	0·02000	

STATEMENT IX—*contd.*

Name of tank.	Year and month.	Date and hour of observation.	Number of days.	Total loss in feet.	Average loss per day in feet.	Remarks.
1	2	3	4	5	6	7
Lake Whiting —*contd.*	January 1925 ..	31st December 1924 (6 p.m.) to 31st Jan. 1925 (6 p.m.).	31	0·55	0·01774	
	February 1925..	31st Jan. (6 p.m.) to 28th Feb (6 p.m.).	28	0·98	0·03500	
	March 1925 ..	28th Feb. (6 p.m.) to 31st Mar. (6 p.m.).	31	1·05	0·03387	
	April 1925 ..	31st Mar. (6 p.m.) to 30th Apr. (6 p.m.).	30	0·90	0·03000	
Lake Beale ..	April and May 1924.	29th Apr. (6 a.m.) to 5th May (6 a.m.).	6	0·390	0·065	The observations were taken in an iron tank.
	May 1924 ..	10th (8 a.m.) to 16th (8 a.m.).	6	0·420	0·070	
	June 1924 ..	6th (8 a.m.) to 8th (8 a.m.).	2	0·090	0·045	
	Do. ..	8th (6 p.m.) to 11th (6 p.m.).	3	0·070	0·023	
	March and Apr. 1925.	30th Mar. (6 a.m.) 16th Apr. (6 a.m.).	17	0·412	0·024	
	Apr. 1925 ..	17th (6 a.m.) to 26th (6 a.m.).	9	0·500	0·056	
Nhaswad Tank.	November and December 1924.	1st Nov. (8 a.m.) to 1st Dec. (8 a.m.).	30	0·30	0·01	The observations were taken in an iron tank.
	Dec. 1924 and January 1925	1st Dec. 1924 (8 a.m.) to 1st Jan. 1925 (8 a.m.).	31	0·31	0·01	

STATEMENT

Statement showing the results of observations for the total losses including

Name of tank.	Month and year.	Date.	Number of days.	Gauge reading at commencement.	Total loss.	Average loss per day.
1	2	3	4	5	6	7
				Feet.	Feet.	Feet.
Ekruk Tank ..	May 1924 ..	27th to 30th ..	3	1507·98	·10	·033
	June 1924 ..	22nd to 25th ..	3	1507·40	·07	·023
	July 1924 ..	27th to 30th ..	3	1506·31	·06	·02
	August 1924 ..	3rd to 6th ..	3	1506·13	·06	·02
	September 1924 ..	12th to 15th ..	3	1509·36	·06	·02
	October 1924 ..	5th to 8th ..	3	1516·44	·01	·003
	November 1924 ..	15th to 18th ..	3	1516·78	·060	·020
	December 1924 ..	11th to 14th ..	3	1516·00	·100	033
	January 1925 ..	15th to 18th ..	3	1514·850	·080	·027
	February 1925 ..	16th to 19th ..	3	1514·20	·06	·020
	March 1925 ..	23th to 26th ..	3	1513·35	·07	·023
	April 1925 ..	13th to 16th ..	3	1512·79	·08	·027
Pathri Tank ..	May 1924 ..	19th to 22nd ..	3	232·84	·12	·04
	June 1924 ..	23rd to 26th ..	3	237·80	·06	·02
	July 1924 ..	20th to 23rd ..	3	237·26	·08	·026
	August 1924 ..	17th to 20th ..	3	236·90	·06	·02
	September 1924 ..	14th to 17th ..	3	238·00	·03	·01
	October 1924 ..	26th to 30th ..	4	241·86	†	†
	November 1924 ..	26th to 29th ..	3	240·43	·09	·03
	December 1924 ..	17th to 20th ..	3	239·56	·06	·02
	January 1925 ..	26th to 29th ..	3	237·70	·09	·03
	February 1925 ..	15th to 18th ..	3	236·91	·08	·026
	March 1925 ..	26th to 29th ..	3	235·75	·07	·023
	April 1925 ..	20th to 23rd ..	3	234·83	·12	·04
Ashti Tank ..	May 1924 ..	.... ..	..	..	..	..
	June 1924 ..	.... ..	..	..	..	..
	July 1924 ..	.... ..	..	..	..	..
	August 1924 ..	11th to 14th ..	3	220·25	·06	·02
	September 1924 ..	14th to 17th ..	3	221·49	·06	.02

* The Figures could
† No accurate results were possible

IX—*contd.*

evaporation, leakage, percolation and absorption for the year 1924-25.

Date of rainfall.	Rainfall.	Replenishment.	Distribution of loss.			Remarks.
			Evaporation.	Leakage.	Percolation and absorption.	
8	9	10	11	12	13	14
	Inches.	Feet.	Feet.	Feet.	Feet.	
..	..	..	·02	*Nil.*	·010	·004 Loss by water supply to Municipality.
..	..	..	·013	*Nil.*	·007	·003 Do.
..	..	..	·01	*Nil.*	·006	·004 Do.
..	..	..	·010	*Nil.*	·007	·003 Do
..	..	..	·010	*	*	* Do. } Unreliable.
..	..	..	·008	*	*	* Do. }
..	..	..	.01	*Nil.*	·008	·002 Loss by water supply to Municipality.
..	..	..	·01	*Nil.*	·005	·002 Loss by water supply to Municipality and ·016 discharge from outlet in canal for irrigation.
	..	..	·01	*Nil.*	·005	·002 Loss by water supply to Municipality and ·01 discharge from outlet in canal for irrigation.
..	..	..	·013	*Nil.*	·005	·002 Loss by water supply to Municipality.
..	..	..	·016	*Nil.*	·005	·002 Do.
..	..	..	·020	*Nil.*	·004	·003 Do.
..	..	..	·022	·00028	·014	·0034 Do.
..	..	..	·015	·0004	·0009	·003 Do.
..	..	..	·013	·0003	·011	·002 Do.
..	..	..	·015	·0004	·0006	·0035 Do.
..	..	..	·006	·0011	·0003	·0022 Do.
..	..	..	†	†	†	† Do.
..	..	..	·015	·0004	·0121	·0025 Do.
..	..	..	·01	·0004	·0049	·0046 Do.
..	..	..	·015	·0004	·013	·0011 Do.
..	..	..	·0129	·0004	·0097	·0029 Do.
..	..	..	·0130	·0002	·0064	·0033 Do.
..	..	..	·02	·0002	·0158	·0036 Do.
..	..	..	..	..	..	No observations were taken during the period owing to high waves in the tank carried by the wind.
..	..	..	..	..	..	
..	..	..	..	..	..	
..	..	..	·017	*Nil.*	·003	
..	..	..	·013	*Nil*	·007	

not be ascertained.
as there was inflow in the tank.

STATEMENT

Name of tank.	Month and year.	Date.	No. of days.	Gauge reading at commencement.	Total loss.	Average loss per day.
1	2	3	4	5	6	7
				Feet.	Feet.	Feet.
Ashti Tank —*contd.*	October 1924 ..	17th to 21st ..	4	228·74	·11	·024
	November 1924 ..	10th to 13th ..	3	227·76	·18	·06
	December 1924 ..	13th to 16th ..	3	226·17	·12	·04
	January 1925 ..	15th to 17th ..	2	224·86	·06	·03
	February 1925 ..	15th to 18th ..	3	224·05	·06	·02
	March 1925 ..	14th to 17th ..	3	223·40	·06	·02
	April 1925 ..	16th to 19th ..	3	222·55	·09	·03
Mukti Tank ..	May 1924 ..	....	..	..	..	..
	June 1924 ..	....	..	..	..	..
	July 1924 ..	....	..	..	..	..
	August 1924 ..	....	..	..	..	..
	September 1924 ..	....	..	..	..	..
	October 1924 ..	....	..	..	..	..
	November 1924 ..	21st to 24th ..	3	926·04	·06	·019
	December 1924 ..	21st to 24th ..	3	925·39	·08	·026
	January 1925 ..	20th to 23rd ..	3	924·62	·08	·027
	February 1925 ..	25th to 28th ..	3	923·68	·08	·027
	March 1925 ..	28th to 31st ..	3	922·87	·08	·026
	April 1925 ..	26th to 29th ..	3	922·00	·09	·030
Mhaswa Tank ..	May 1924 ..	19th to 23rd ..	4	11·60	·20	·05
	June 1924 ..	13th to 19th ..	4 (?)	10·30	..	..
	July 1924 ..	16th to 20th ..	4	16·50	·10	·025
	August 1924 ..	....	..	..	..	..
	September 1924 ..	....	..	..	..	..
	October 1924 ..	....	..	..	..	..
	November 1924 ..	....	..	..	..	..
	December 1924 ..	....	..	..	..	..
	January 1925 ..	....	..	..	..	..
	February 1925 ..	23rd to 27th ..	4	19·97	·12	·03
	March 1925 ..	....	..	..	..	..
	April 1925 ..	16th to 20th ..	4	18·44	·016	04

IX—*contd.*

Date of rainfall.	Rainfall.	Replenishment.	Distribution of loss.			Remarks.
			Evaporation.	Leakage.	Percolation and absorption.	
8	9	10	11	12	13	14
	Inches.	Feet.	Feet.	Feet.	Feet.	
..	..	..	·02	·0001	·004	
..	..	..	·023	*Nil.*	·004	·032 Discharge from outlet in canal for irrigation.
..	..	..	·017	*Nil.*	·004	·02 Do.
..	..	..	·013	*Nil.*	·006	·011 Do.
..	..	..	·017	*Nil.*	·003	
..	..	..	·017	*Nil.*	·003	
..	..	..	·023	*Nil.*	·006	·001 Do.
..	..	..	..	..	..	No observations were taken as there was inflow in the tank and the days were cloudy with slight drizzling.
..	..	..	..	..	..	
..	..	..	..	..	..	
..	..	..	..	..	..	No observations were taken as there was inflow in the tank.
..	..	..	..	..	..	
..	..	..	..	..	..	
..	..	..	·012	·005	·002	
..	..	..	·016	·004	·006	
..	..	..	·015	·004	·008	
..	..	..	·017	·006	·004	
..	..	..	·020	·003	·003	
..	..	..	·024	·004	·002	
..	..	..	·0432	·0008	·006	
14th to 16th.	·95	2·60	..	..	..	Rain fell during the observations.
..	..	..	·01875	·00045	·0005	·0053 Discharge from outlet in canal for irrigation.
..	..	..	..	..	..	No observations could be made due to rain.
..	..	..	..	..	..	
..	..	..	..	..	..	
..	..	..	..	..	..	Results unreliable.
..	..	..	..	..	..	
..	..	..	..	..	..	
..	..	..	·01725	·00066	·01028	·00181 Discharge from outlet in canal for irrigation.
..	..	..	..	..	..	No observations were taken.
..	..	..	·0346	·0005	·0049	

STATEMENT

Statement showing the results of observations for the total losses year

Name of tank.	Month and year.	Date.	No. of days.	Gauge readings at commencement.	Total loss.
1	2	3	4	5	6
				Feet.	Feet.
Lake Wihting ..	May 1924 ..	30th April 1924 (6 p.m.) to 31st May 1924 (6 p.m.).	31	50·55	1·14
	June 1924 ..				
	July 1924 ..				
	August 1924 ..	*	..	..	..
	September 1924 ..				
	October 1924 ..				
	November 1924 ..	31st October 1924 (6 p.m. to 30th Nov. 1924 (6 p.m.)	30	91·90	0·41
	December 1924 ..	30th Nov. 1924 (6. p.m.) to 31st Dec. 1924 (6 p.m.).	31	86·00	0·83
	January 1925 ..	31st Dec. 1924 (6 p.m.) to 31st Jan. 1925 (6 p.m.).	31	77·70	0·57
	February 1925 ..	31st Jan. 1925 (6 p.m.) to 28th Feb. 1925 (6 p.m.).	28	72·20	1·12
	March 1925 ..	28th Feb. 1925 (6 p.m.) to 31st Mar. 1925 (6 p.m.).	31	67·57	1·21
	April 1925 ..	31st Mar. 1925 (6 p.m.) to 30th April 1925 (6 p.m.).	30	62·52	0·97
Mhaswad Tank ..	May 1924 ..				
	June 1924 ..				
	July 1924 ..	*	..	..	..
	August 1924 ..				
	September 1924 ..				
	October 1924 ..				
	November 1924 ..	1st Nov. 1924 (8 a.m.) to 1st Dec. 1924 (8 a.m.).	30	14·70	1·90
	December 1924 ..	1st Dec. 1924 (8 a.m.) to 1st Jan. 1925 (8 a.m.).	31	11·00	2·41
	January 1925 ..				
	February 1925 ..	*	..	..	..
	March 1925 ..				
	April 1925 ..				

*Observations are not taken as the results are vitiated

IX—*concld.*

including evaporation, leakage, percolation and absorption for the 1924-25—concld.

Average loss per day.	Date of rainfall.	Rainfall.	Replenishment.	Distribution of loss.		
				Evaporation.	Leakage.	Percolation and absorption.
7	8	9	10	11	12	13
Feet.		Inches.	Feet.	Feet.	Feet.	Feet.
0·03677	....	....	....	0·03000	0·00068	0·00609
....	....	....	....	....	....	....
0·01367	....	....	....	0·01166	0·00161	0·00040
0·02677	....	....	....	0·02000	0·00085	0·00592
0·01838	....	....	....	0·01774	0·00008	0·00056
0·04000	....	....	....	0·03500	0·00050	0·00450
0·03903	....	....	....	0·03387	0·00043	0·00473
0·03233	19th April 1925.	0·16	....	0·03000	0·00021	0·00212
....	....	....	....	....	....	....
0·06333	22nd Nov. 1924	0·12	....	0·01000	0·003739	0·049591
	23rd Nov. 1924.	0·01	....			
	24th Nov. 1924.	0·11	....			
0·07774	9th Dec. 1924.	0·50	....	0·01000	0·00469	0·06305
....	....	....	.....	....	....	....

owing to heavy rains and high wind and consequent wave action.

STATEMENT

Statement of Silt observations made on some of the rivers in the

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
1	Krishna at Mahuli bridge.	14th July 1924 ..	Left Bank ..	..	5 0
		Do. ..	Centre ..	..	7 0
		Do. ..	Do. ..	..	7 0
		Do. ..	Do. ..	..	7 0
		Do. ..	Right Bank ..	..	5 0
2	Krishna at Kudchi Railway Bridge.	16th July 1924 ..	Left Bank ..	..	20 0
		Do. ..	Centre ..	..	40 0
		Do. ..	Do. ..	..	40 0
		Do. ..	Do. ..	..	40 0
		Do. ..	Right Bank ..	..	48 0
3	Do. ..	20th July 1924 ..	Left Bank ..	..	22 0
		Do. ..	Centre ..	..	28 0
		Do. ..	Do. ..	..	28 0
		Do. ..	Do. ..	..	28 0
		Do. ..	Right Bank ..	..	32 0
4	Do. ..	4th Sept. 1924 ..	Left Bank ..	..	20 0
		Do. ..	Centre ..	..	32 0
		Do. ..	Do. ..	..	32 0
		Do. ..	Do. ..	..	32 0
		Do. ..	Right Bank ..	..	30 0
5	Krishna at Kusnal ..	21st June 1924 ..	Left Bank ..	19·40	25 0
		Do. ..	Centre ..	19·40	26 0
		Do. ..	Do. ..	19·40	26 0
		Do. ..	Do. ..	19·40	26 0
		Do. ..	Right Bank ..	19·40	27 0
6	Do. ..	23rd June 1924 ..	Left Bank ..	14·70	21 0
		Do. ..	Centre ..	14·70	21 0
		Do. ..	Do. ..	14·70	21 0
		Do. ..	Do. ..	14·70	21 0
		Do. ..	Right Bank ..	14·70	22 0

* Velocity observations

No. X.

Deccan Irrigation Circle, during the monsoon of the year 1924-25.

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
2	6	4·76	7·01	Left Bank. Middepth specimen.
0	6	7·14	8·61	Centre. Top specimen.
3	6	7·14		Do. Middepth specimen.
6	0	7·14		Do. Bottom specimen.
2	6	6·00	11·02	Right Bank. Middepth specimen.
10	0	*	3·13	Left Bank. Middepth specimen.
0	6	*	4·10	Centre. Top specimen.
20	0	*		Do. Middepth specimen.
39	0	*		Do. Bottom specimen.
24	0	*	4·62	Right Bank. Middepth specimen.
11	0	4·28	1·03	Left Bank. Middepth specimen.
0	6	7·50	1·09	Centre. Top specimen.
14	0	7·50		Do. Middepth specimen.
27	0	7·50		Do. Bottom specimen.
16	0	6·00	1·47	Right Bank. Middepth specimen.
10	0	3·57	2·37	Left Bank. Middepth specimen.
0	6	5·00	3·20	Centre. Top specimen.
16	0	5·00		Do. Middepth specimen.
31	0	5·00		Do. Bottom specimen.
15	0	5·00	2·39	Right Bank. Middepth specimen.
12	6	4·00	8·17	Left Bank. Middepth specimen.
0	6	4·76	8·42	Centre. Top specimen.
13	0	4·76		Do. Middepth specimen.
25	0	4·76		Do. Bottom specimen.
13	6	4·44	7·05	Right Bank. Middepth specimen.
10	6	2·50	1·86	Left Bank. Middepth specimen.
0	6	2·86	2·38	Centre. Top specimen.
10	6	2·86		Do. Middepth specimen.
20	0	2·86		Do. Bottom specimen.
11	0	2·67	2·23	Right Bank. Middepth specimen.

could not be taken.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
7	Krishna at Kusnal ..	3rd July 1924 ..	Left Bank ..	10·50	17 0
		Do. ..	Centre ..	10·50	18 0
		Do. ..	Do. ..	10·50	18 0
		Do. ..	Do. ..	10·50	18 0
		Do. ..	Right Bank ..	10·50	19 0
8	Do. ..	11th July 1924 ..	Left Bank ..	21·35	26 0
		Do. ..	Centre ..	21·35	27 0
		Do. ..	Do. ..	21·35	27 0
		Do. ..	Do. ..	21·35	27 0
		Do. ..	Right Bank ..	21·35	28 0
9	Do. .	11th Aug. 1924 ..	Left Bank ..	29·60	36 0
		Do. ..	Centre ..	29·60	37 0
		Do. ..	Do. ..	29·60	37 0
		Do. ..	Do. ..	29·60	37 0
		Do. ..	Right Bank ..	29·60	38 0
10	Do. ..	24th Aug. 1924 ..	Left Bank ..	16·60	23 0
		Do. ..	Centre ..	16·60	23 0
		Do. ..	Do. ..	16·60	23 0
		Do. ..	Do. ..	16·60	23 0
		Do. ..	Right Bank ..	16·60	24 0
11	Do. ..	26th Aug. 1924 ..	Left Bank .	15·60	22 0
		Do. ..	Centre ..	15·60	22 0
		Do. ..	Do. ..	15·60	22 0
		Do. ..	Do. ..	15·60	22 0
		Do. ..	Right Bank .	15·60	23 0
12	Do. . ..	26th Sept. 1924 ..	Left Bank ..	19·00	25 0
		Do. ..	Centre ..	19·00	25 0
		Do. ..	Do. ..	19·00	25 0
		Do. ..	Do. ..	19·00	25 0
		Do. ..	Right Bank ..	19·00	26 0
13	Do. ..	30th Sept. 1924 ..	Left Bank ..	25·00	30 0
		Do. ..	Centre ..	25·00	31 0
		Do. ..	Do. ..	25·00	31 0
		Do. ..	Do. ..	25·00	31 0
		Do. ..	Right Bank ..	25·00	32 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
8	6	2·00	1·60	Left Bank. Middepth specimen.
0	6	2·44		Centre. Top specimen.
9	0	2·44	1·74	Do. Middepth specimen.
17	0	2·44		Do. Bottom specimen.
9	6	2·22	1·45	Right Bank. Middepth specimen.
13	0	4·44	2·06	Left Bank. Middepth specimen.
0	6	5·26		Centre. Top specimen.
13	6	5·26	3·46	Do. Middepth specimen.
26	0	5·26		Do. Bottom specimen.
14	0	4·76	3·00	Right Bank. Middepth specimen.
18	0	4·44	1·20	Left Bank. Middepth specimen.
0	6	5·71		Centre. Top specimen.
18	6	5·71	·79	Do. Middepth specimen.
36	0	5·71		Do. Bottom specimen.
19	0	5·00	3·50	Right Bank. Middepth specimen.
11	6	3·23	33·05	Left Bank. Middepth specimen.
0	6	4·00		Centre. Top specimen.
11	6	4·00	25·51	Do. Middepth specimen.
22	0	4·00		Do. Bottom specimen.
12	0	3·33	24·29	Right Bank. Middepth specimen.
11	0	2·94	3·53	Left Bank. Middepth specimen.
0	6	3·23		Centre. Top specimen.
11	0	3·23	3·53	Do. Middepth specimen.
21	0	3·23		Do. Bottom specimen.
11	6	3·08	4·03	Right Bank. Middepth specimen.
12	6	3·08	6·48	Left Bank. Middepth specimen.
0	6	3·33		Centre. Top specimen.
12	6	3·33	5·00	Do. Middepth specimen.
24	0	3·33		Do. Bottom specimen.
13	0	2·94	6·31	Right Bank. Middpth specimen.
15	0	4·00	9·90	Left Bank. Middepth specimen.
0	6	4·44		Centre. Top specimen.
15	6	4·44	3·07	Do. Middepth specimen.
30	0	4·44		Do. Bottom specimen.
16	0	4·00	2·96	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
14	Nira at M. & S. M. Railway bridge.	27th July 1924 ..	Left Bank ..	..	5 0
		Do. ..	Centre ..	..	2 0
		Do. ..	Do. ..	..	2 0
		Do. ..	Do. ..	..	2 0
		Do. ..	Right Bank ..	..	6 0
15	Do. ..	31st July 1924 ..	Left Bank ..	..	5 0
		Do. ..	Centre ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Right Bank ..	..	6 0
16	Do. ..	12th Sept. 1924 ..	Left Bank ..	..	3 0
		Do. ..	Centre ..	..	2 0
		Do. ..	Do ..	..	2 0
		Do. ..	Do. ..	..	2 0
		Do. ..	Right Bank ..	..	3 0
17	Nira at Shirwal ...	31st July 1924 ..	Left Bank ..	..	9 6
		Do. ..	Centre ..	..	13 6
		Do. ..	Do. ..	..	13 6
		Do. ..	Do. ..	..	13 6
		Do. ..	Right Bank ..	..	13 0
18	Bhima at Pargaon ..	21st July 1924 ..	Left Bank ..	..	8 8
		Do. ..	Centre ..	..	10 6
		Do. ..	Do. ..	..	10 6
		Do. ..	Do. ..	..	10 6
		Do. ..	Right Bank ..	..	5 0
19	Do. ..	30th July 1924 ..	Left Bank ..	..	15 0
		Do. ..	Centre ..	..	19 0
		Do. ..	Do. ..	..	19 0
		Do. ..	Do. ..	..	19 0
		Do. ..	Right Bank ..	..	10 0
20	Do. ..	6th Aug. 1924 ..	Left Bank ..	..	9 3
		Do. ..	Centre ..	..	11 3
		Do. ..	Do. ..	..	11 3
		Do. ..	Do. ..	..	11 3
		Do. ..	Right Bank ..	..	6 3

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
2	6	4·4	·79	Left Bank. Middepth specimen.
0	6	4·2		Centre. Top specimen.
1	0	4·2	1·07	Do. Middepth specimen.
1	0	4·2		Do. Bottom specimen.
3	0	4·2	·81	Right Bank. Middepth specimen.
2	6	4·7	2·23	Left Bank. Middepth specimen.
0	6	4·9		Centre. Top specimen.
1	6	4·9	2·25	Do. Middepth specimen.
2	0	4·9		Do. Bottom specimen.
3	0	4·7	1·99	Right Bank. Middepth specimen.
1	6	1·7	1·14	Left Bank. Middepth specimen.
0	6	1·9		Centre. Top specimen.
1	0	1·9	·31	Do. Middepth specimen.
1	0	1·9		Do. Bottom specimen.
1	6	2·1	·24	Right Bank. Middepth specimen.
4	9	7·31	3·68	Left Bank. Middepth specimen.
0	6	8·11		Do. Top specimen.
6	9	8·11	1·07	Do. Middepth specimen.
12	6	8·11		Do. Bottom specimen.
6	6	7·50	·83	Right Bank. Middepth specimen.
4	4	1·50	1·47	Left Bank. Middepth specimen.
0	6	1·50		Centre. Top specimen.
5	3	1·50	14·82	Do. Middepth specimen.
9	6	1·50		Do. Bottom specimen.
2	6	1·50	7·18	Right Bank. Middepth specimen.
7	6	1·83	7·93	Left Bank. Middepth specimen.
0	6	1·83		Centre. Top specimen.
9	6	1·83	8·20	Do. Middepth specimen.
18	0	1·83		Do. Bottom specimen.
5	0	1·83	6·00	Right Bank. Middepth specimen.
4	7½	1·58	3·31	Left Bank. Middepth specimen.
0	6	1·58		Centre. Top specimen.
5	7½	1·58	1·53	Do. Middepth specimen.
10	3	1·58		Do. Bottom specimen.
3	1½	1·58	1·07	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.	
1	2	3	4	5	6	
				Ft.	Ft	in
21	Bhima at Pargaon ..	14th Aug. 1924 ..	Left Bank ..	..	6	5
		Do. ..	Centre ..	..	5	7
		Do. ..	Do. ..	..	5	7
		Do. ..	Do. ..	..	5	7
		Do. ..	Right Bank ..	..	3	11
22	Do. ..	21st Aug. 1924 ..	Left Bank ..	..	5	4
		Do. ..	Centre ..	..	7	5
		Do. ..	Do. ..	..	7	5
		Do. ..	Do. ..	..	7	5
		Do. ..	Right Bank ..	..	5	0
23	Do. ..	1st Sept. 1924 ..	Left Bank ..	..	12	0
		Do. ..	Centre ..	..	18	0
		Do. ..	Do. ..	..	18	0
		Do. ..	Do. ..	..	18	0
		Do. ..	Right Bank ..	..	16	0
24	Do. ..	7th Sept. 1924	Left Bank ..	..	8	0
		Do.	Centre ..	..	9	10
		Do.	Do. ..	..	9	10
		Do. ..	Do. ..	..	9	10
		Do. ..	Right Bank ..	..	5	0
25	Bhima at Koregaon.	12th July 1924 ..	Left Bank ..	..	6	6
		Do. ..	Centre ..	..	6	0
		Do. ..	Do. ..	..	6	0
		Do. ..	Do. ..	..	6	0
		Do. ..	Right Bank ..	..	6	0
26	Do. ..	13th July 1924 ..	Left Bank ..	..	10	6
		Do. ..	Centre ..	..	8	6
		Do. ..	Do. ..	..	8	6
		Do. ..	Do. ..	..	8	6
		Do. ..	Right Bank ..	..	9	0
27	Do. ..	2nd Aug. 1924 ..	Left Bank ..	..	11	4
		Do. ..	Centre ..	..	11	4
		Do. ..	Do. ..	..	11	4
		Do. ..	Do. ..	..	11	4
		Do. ..	Right Bank ..	..	11	10

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet. per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
3	2½	1·25	3·37	Left Bank. Middepth specimen.
0	6	1·25		Centre. Top specimen.
2	9½	1·25	12·63	Do. Middepth specimen.
4	7	1·25		Do. Bottom specimen.
1	11½	1·25	9·26	Right Bank. Middepth specimen.
2	8	0·58	·74	Left Bank. Middepth specimen.
0	6	0·58		Centre. Top specimen.
3	8½	0·58	5·00	Do. Middepth specimen.
6	6	0·58		Do. Bottom specimen.
2	6	0·58	·61	Right Bank. Middepth specimen.
6	0	2·08	2·85	Left Bank. Middepth specimen.
0	6	2·08		Centre. Top specimen.
9	0	2·08	3·56	Do. Middepth specimen.
17	0	2·08		Do. Bottom specimen.
8	0	2·08	·72	Right Bank. Middepth specimen.
4	0	1·17	14·10	Left Bank. Middepth specimen.
0	6	1·17		Centre. Top specimen.
4	11	1·17	1·24	Do. Middepth specimen.
8	10	1·17		Do. Bottom specimen.
2	6	1·17	14·59	Right Bank. Middepth specimen.
3	3	2·10	16·75	Left Bank. Middepth specimen.
0	6	2·32		Centre. Top specimen.
3	0	2·32	60·00	Do. Middepth specimen.
5	0	2·32		Do. Bottom specimen.
3	0	2·95	·96	Right Bank. Middepth specimen.
5	3	4·33	3·53	Left Bank. Middepth specimen.
0	6	5·00		Centre. Top specimen.
4	3	5·00	3·68	Do. Middepth specimen.
7	6	5·00		Do. Bottom specimen.
4	6	3·82	4·10	Right Bank. Middepth specimen.
5	8	5·08	2·26	Left Bank. Middepth specimen.
0	6	5·08		Centre. Top specimen.
5	8	5·08	3·60	Do. Middepth specimen.
10	4	5·08		Do. Bottom specimen.
5	11	4·57	1·23	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
28	Bhima at Koregaon.	22nd Aug. 1924 ..	Left Bank ..	..	6 8
		Do. ..	Centre ..	..	8 6
		Do. ..	Do. ..	..	8 6
		Do. ..	Do. ..	..	8 6
		Do. ..	Right Bank ..	..	6 4
29	Do. ..	23rd Aug. 1924 ..	Left Bank ..	..	7 9
		Do. ..	Centre ..	..	15 4
		Do. ..	Do. ..	..	15 4
		Do. ..	Do. ..	..	15 4
		Do. ..	Right Bank ..	..	7 6
30	Do. ..	24th Aug. 1924 ..	Left Bank ..	..	11 10
		Do. ..	Centre ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Do. ..	..	10 0
		Do. ..	Right Bank .	..	11 10
31	Do. ..	25th Aug. 1924 ..	Left Bank ..	..	5 8
		Do. ..	Centre ..	..	6 8
		Do. ..	Do. ..	..	6 8
		Do. ..	Do. ..	..	6 8
		Do.	Right Bank ..	..	7 8
32	Ghod at Kalamb ..	28th June 1924 ..	Left Bank ..	..	2 9
		Do. ..	Centre ..	..	3 6
		Do. ..	Do. ..	..	3 6
		Do. ..	Do. ..	..	3 6
		Do. ..	Right Bank ..	..	2 3
33	Do. ..	30th June 1924 ..	Left Bank ..	.	3 6
		Do. ..	Centre ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Right Bank .	..	3 0
34	Do. ..	2nd July 1924 ..	Left Bank ..	..	4 9
		Do. ..	Centre ..	..	6 6
		Do. ..	Do. .	..	6 6
		Do.	Do. ..	..	6 6
		Do. ..	Right Bank. ..	..	4 9

No. X –*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grams.	
3	4	2·83	13·21	Left Bank. Middepth specimen.
0	6	3·42		Centre. Top specimen.
4	3	3·42	10·33	Do. Middepth specimen.
7	6	3·42		Do. Bottom specimen.
3	2	3·25	6·79	Right Bank. Middepth specimen.
3	10½	3·25	20·32	Left Bank. Middepth specimen.
0	6	4·57		Centre. Top specimen.
7	8	4·57	16·23	Do. Middepth specimen.
14	4	4·57		Do. Bottom specimen.
3	9	3·61	13·12	Right Bank. Middepth specimen.
5	11	5·00	7·47	Left Bank. Middepth specimen.
0	6	5·00		Centre. Top specimen.
5	0	5·00	4·17	Do. Middepth specimen.
9	0	5·00		Do. Bottom specimen.
5	11	4·78	6·04	Right Bank. Middepth specimen.
2	10	1·91	2·52	Left Bank. Middepth specimen.
0	6	3·82		Centre. Top specimen.
3	4	3·82	3·59	Do. Middepth specimen.
5	8	3·82		Do. Bottom specimen.
3	10	4·64	4·10	Right Bank. Middepth specimen.
1	4½	3·00	·59	Left Bank. Middepth specimen.
0	6	3·46		Centre. Top specimen.
1	9	3·46	1·19	Do. Middepth specimen.
2	6	3·46		Do. Bottom specimen.
1	1½	2·40	·35	Right Bank. Middepth specimen.
1	9	3·00	·57	Left Bank. Middepth specimen.
0	6	3·46		Centre. Top specimen.
2	0	3·46	·16	Do. Middepth specimen.
3	0	3·46		Do. Bottom specimen.
1	6	2·81	·39	Right Bank. Middepth specimen.
2	4½	3·46	5·04	Left Bank. Middepth specimen.
0	6	4·50		Centre. Top specimen.
3	2	4·50	6·19	Do. Middepth specimen.
5	6	4·50		Do. Bottom specimen.
2	4½	3·75	4·07	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. In.
35	Ghod at Kalamb ..	10th July 1924 ..	Left Bank ..	..	4 9
		Do. ..	Centre ..	..	6 6
		Do. ..	Do. ..	..	6 6
		Do. ..	Do. ..	..	6 6
		Do. ..	Right Bank ..	..	4 9
36	Do. ..	25th July 1924 ..	Left Bank ..	..	6 9
		Do. ..	Centre ..	..	9 6
		Do. ..	Do. ..	..	9 6
		Do. ..	Do. ..	..	9 6
		Do. ..	Right Bank. ..	..	6 12
37	Do. ..	27th July 1924 ..	Left Bank ..	..	9 0
		Do. ..	Centre ..	..	11 6
		Do. ..	Do. ..	..	11 6
		Do. ..	Do. ..	..	11 6
		Do. ..	Right Bank ..	..	8 3
38	Do. ..	28th July 1924 ..	Left Bank ..	..	14 6
		Do. ..	Centre ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Right Bank ..	..	13 0
39	Do. ..	22nd Aug. 1924 ..	Left Bank ..	..	9 0
		Do. ..	Centre ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Right Bank ..	..	8 6
40	Mula at Rahuri ..	15th June 1924 ..	Left Bank ..	7·00	6 0
		Do. ..	Centre ..	7·00	5 6
		Do. ..	Do. ..	7·00	5 6
		Do. ..	Do. ..	7·00	5 6
		Do. ..	Right Bank ..	7·00	4 0
41	Do. ..	Do. ..	Left Bank ..	3·65	5 C
		Do. ..	Centre ..	3·65	4 6
		Do. ..	Do. ..	3·65	4 C
		Do. ..	Do. ..	3·65	4 6
		Do. ..	Right Bank ..	3·65	3 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
2	4½	3·75	·42	Left Bank. Middepth specimen.
0	0	4·50	4·05	Centre. Top specimen.
3	3	4·50		Do. Middepth specimen.
5	0	4·50		Do. Bottom specimen.
2	4½	3·75	9·00	Right Bank. Middepth specimen.
3	4½	4·50	·46	Left Bank. Middepth specimen.
0	0	0·43	·76	Centre. Top specimen.
4	0	0·43		Do. Middepth specimen.
8	0	0·43		Do. Bottom specimen.
3	0	5·00	·24	Right Bank. Middepth specimen.
4	0	5·62	·61	Left Bank. Middepth specimen.
0	0	7·03	·90	Centre. Top specimen.
5	0	7·03		Do. Middepth specimen.
10	0	7·03		Do. Bottom specimen.
4	1½	5·62	·70	Right Bank. Middepth specimen.
7	3	7·08	1·05	Left Bank. Middepth specimen.
0	0	9·00	1·60	Centre. Top specimen.
9	0	9·00		Do. Middepth specimen.
17	0	9·00		Do. Bottom specimen.
6	6	6·82	2·47	Right Bank. Middepth specimen.
4	6	5·62	1·84	Left Bank. Middepth specimen.
0	6	7·03	7·02	Centre. Top specimen.
6	0	7·03		Do. Middepth specimen.
11	0	7·03		Do. Bottom specimen.
4	3	5·62	6·00	Right Bank. Middepth specimen.
3	0	2·90	27·13	Left Bank. Middepth specimen.
0	6	2·86	46·43	Centre. Top specimen.
2	9	2·86		Do. Middepth specimen.
4	6	2·86		Do. Bottom specimen.
2	0	2·50	19·73	Right Bank. Middepth specimen.
2	6	2·35	36·59	Left Bank. Middepth specimen.
0	6	2·22	46·26	Centre. Top Specimen.
2	3	2·22		Do. Middepth specimen.
3	6	2·22		Do. Bottom specimen.
1	6	2·00	44·00	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
42	Mula at Rahuri ..	29th June 1924 ..	Left Bank ..	5·05	5 10
		Do. ..	Centre ..	5·05	5 3
		Do. ..	Do. ..	5·05	5 3
		Do. ..	Do. ..	5·05	5 3
		Do. ..	Right Bank ..	5·05	3 9
43	Do. ..	Do. ..	Left Bank ..	4·37	4 0
		Do. ..	Centre ..	4·37	4 0
		Do. ..	Do. ..	4·37	4 0
		Do. ..	Do. ..	4·37	4 0
		Do. ..	Right Bank ..	4·37	3 0
44	Do. ..	3rd July 1924 ..	Left Bank ..	5·45	6 0
		Do. ..	Centre ..	5·45	5 9
		Do. ..	Do. ..	5·45	5 9
		Do. ..	Do. ..	5·45	5 9
		Do. ..	Right Bank ..	5·45	4 6
45	Do. ..	26th July 1924 ..	Left Bank ..	7·37	8 0
		Do. ..	Centre ..	7·37	7 6
		Do. ..	Do. ..	7·37	7 6
		Do. ..	Do. ..	7·37	7 6
		Do. ..	Right Bank ..	7·37	5 9
46	Do. ..	23rd Aug. 1924 ..	Left Bank ..	7·07	7 0
		Do. ..	Centre ..	7·07	8 0
		Do. ..	Do. ..	7·07	8 0
		Do. ..	Do. ..	7·07	8 0
		Do. ..	Right Bank ..	7·07	6 0
47	Do. ..	Do. ..	Left Bank ..	7·72	10 0
		Do. ..	Centre ..	7·72	7 0
		Do. ..	Do. ..	7·72	7 0
		Do. ..	Do ..	7·72	7 0
		Do. ..	Right Bank ..	7·72	5 0
48	Do. ..	24th Aug. 1924 ..	Left Bank ..	8·15	10 0
		Do. ..	Centre ..	8·15	11 0
		Do. ..	Do. ..	8·15	11 0
		Do. ..	Do. ..	8·15	11 0
		Do. ..	Right Bank ..	8·15	6 0

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
2	11	4·17	15·75	Left Bank. Middepth specimen.
0	6	3·85		Centre. Top specimen.
2	7½	3·85	16·90	Do. Middepth specimen.
4	3	3·85		Do. Bottom specimen.
1	10½	3·33	14·78	Right Bank. Middepth specimen.
2	0	2·35	7·84	Left Bank. Middepth specimen.
0	6	2·11		Centre. Top specimen.
2	0	2·11	8·05	Do. Middepth specimen.
3	0	2·11		Do. Bottom specimen.
1	6	2·22	6·85	Right Bank. Middepth specimen.
3	0	2·86	29·78	Left Bank. Middepth specimen.
0	6	3·33		Centre. Top specimen.
2	10½	3·33	8·96	Do. Middepth specimen.
4	9	3·33		Do. Bottom specimen.
2	3	2·62	5·67	Right Bank. Middepth specimen.
4	0	3·45	13·36	Left Bank. Middepth specimen.
0	6	3·33		Centre. Top specimen.
3	9	3·33	11·54	Do. Middepth specimen.
6	6	3·33		Do. Bottom specimen.
2	10½	3·17	14·21	Right Bank. Middepth specimen.
3	6	4·17	27·31	Left Bank. Middepth specimen.
0	6	4·00		Centre. Top specimen.
4	0	4·00	30·53	Do. Middepth specimen.
7	0	4·00		Do. Bottom specimen.
3	0	3·85	33·44	Right Bank. Middepth specimen.
5	0	4·76	29·06	Left Bank. Middepth specimen.
0	6	4·44		Centre. Top specimen.
3	6	4·44	31·31	Do. Middepth specimen.
6	0	4·44		Do. Bottom specimen.
2	6	4·00	33·13	Right Bank. Middepth specimen.
5	0	4·55	21·20	Left Bank. Middepth specimen.
0	6	4·35		Centre. Top specimen.
5	6	4·35	30·21	Do. Middepth specimen.
10	0	4·35		Do. Bottom specimen.
3	0	4·26	31·78	Right Bank. Middepth specimen.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
49	Mula at Rahuri ..	24th Aug. 1924 ..	Left Bank ..	7·28	9 0
		Do. ..	Centre ..	7 28	10 0
		Do. ..	Do. ..	7·28	10 0
		Do. ..	Do. ..	7·28	10 0
		Do. ..	Right Bank ..	7 28	6 0
50	Do. ..	22nd Sept. 1924 ..	Left Bank ..	5·89	5 10
		Do. ..	Centre ..	5·89	6 3
		Do. ..	Do. ..	5·89	6 3
		Do. ..	Do. ..	5·89	6 3
		Do. ..	Right Bank ..	5·89	4 3
51	Do. ..	24th Sept. 1924 ..	Left Bank ..	7·70	10 0
		Do. ..	Centre ..	7·70	9 6
		Do. ..	Do. ..	7·70	9 6
		Do. ..	Do. ..	7·70	9 6
		Do. ..	Right Bank ..	7·70	4 0
52	Mulla at Ambeghargaon.*	28th June 1924 ..	Left Bank ..	..	5 0
		Do. ..	Centre ..	..	3 6
		Do. ..	Do. ..	..	3 6
		Do. ..	Do. ..	..	3 6
		Do. ..	Right Bank ..	..	2 0
53	Do.* ..	2nd July 1924 ..	Left Bank ..	..	7 0
		Do. ..	Centre ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Right Bank ..	..	3 0
54	Do.* ..	10th July 1924 ..	Left Bank ..	..	6 0
		Do. ..	Centre ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Do. ..	..	4 0
		Do. ..	Right Bank ..	..	3 0
55	Do.* ..	13th July 1924 ..	Left Bank ..	..	11 0
		Do. ..	Centre ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Right Bank ..	..	6 0

* Figures of velocity

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
4	6	3·92	18·29	Left Bank. Middepth specimen.
0	6	3·64		Centre. Top specimen.
5	0	3·64	23·01	Do. Middepth specimen.
9	0	3·64		Do. Bottom specimen.
3	0	3·45	19·67	Right Bank. Middepth specimen.
2	11	4·65	12·83	Left Bank. Middepth specimen.
0	6	4·44		Centre. Top specimen.
3	1½	4·44	13·76	Do. Middepth specimen.
5	3	4·44		Do. Bottom specimen.
2	1½	2·78	17·45	Right Bank. Middepth specimen.
5	0	4·78	73·15	Left Bank. Middepth specimen.
0	6	4·55		Centre. Top specimen.
4	9	4·55	48·95	Do. Middepth specimen.
8	6	4·55		Do. Bottom specimen.
2	0	2·70	53·70	Right Bank. Middepth specimen.
2	6	5·41	1·23	Left Bank. Middepth specimen.
0	6	5·41		Centre. Top specimen.
1	9	5·41	2·11	Do. Middepth specimen.
2	6	5·41		Do. Bottom specimen.
1	0	5·41	1·23	Right Bank. Middepth specimen.
3	6	5·71	2·01	Left Bank. Middepth specimen.
0	6	5·71		Centre. Top specimen.
2	0	5·71	2·18	Do. Middepth specimen.
3	0	5·71		Do. Bottom specimen.
1	6	5·71	2·19	Right Bank. Middepth specimen.
3	0	5·71	1·07	Left Bank. Middepth specimen.
0	6	5·71		Centre. Top specimen.
2	0	5·71	1·48	Do. Middepth specimen.
3	0	5·71		Do. Bottom specimen.
1	6	6·25	1·23	Right Bank. Middepth specimen.
5	6	6·25	1·84	Left Bank. Middepth specimen.
0	6	6·25		Centre. Top specimen.
4	6	6·25	5·05	Do. Middepth specimen.
8	0	6·25		Do. Bottom specimen.
3	0	6·25	1·99	Right Bank. Middepth specimen.

in column 8 are doubtful.

STATEMENT

Serial No.	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
56	Mula at Ambeghar-gaon.*	25th July 1924 ..	Left Bank ..	..	13 0
		Do. ..	Centre ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Right Bank ..	..	5 0
57	Do.* ..	27th July 1924 ..	Left Bank ..	..	13 0
		Do. ..	Centre ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Right Bank ..	..	6 0
58	Do.* ..	31st July 1924 ..	Left Bank ..	..	13 0
		Do. ..	Centre ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Do. ..	..	9 0
		Do. ..	Right Bank ..	..	6 0
59	Do.* ..	23rd Aug. 1924 ..	Left Bank ..	..	6 0
		Do. ..	Centre ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Right Bank ..	..	1 6
60	Do.* ..	12th Sept. 1924 ..	Left Bank ..	..	6 0
		Do. ..	Centre ..	..	3 0
		Do. ..	Do. ..	..	3 6
		Do. ..	Do. ..	..	3 0
		Do. ..	Right Bank ..	..	2 0
61	Do.* ..	Do. ..	Left Bank ..	..	6 0
		Do. ..	Centre ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Right Bank ..	..	2 0
62	Do.* ..	26th Sept. 1924 ..	Left Bank ..	..	6 0
		Do. ..	Centre ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Do. ..	..	3 0
		Do. ..	Right Bank ..	..	2 0

* Figures of velocity in

No. X—*contd.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks
7		8	9	10
Ft.	in.		Grains.	
6	6	6·25	5·23	Left Bank. Middepth specimen.
0	6	6·25		Centre. Top specimen.
4	6	6·25	4·42	Do. Middepth specimen.
8	0	6·25		Do. Bottom specimen.
2	6	6·25	4·31	Right Bank. Middepth specimen.
6	6	6·25	2·19	Left Bank. Middepth specimen.
0	0	6·25		Centre. Top specimen.
4	6	6·25	4·98	Do. Middepth specimen.
8	0	6·25		Do. Bottom specimen.
3	0	6·25	1·58	Right Bank. Middepth specimen.
6	6	6·25	7·77	Left Bank. Middepth specimen.
0	6	6·25		Centre. Top specimen.
4	6	6·25	4·36	Do. Middepth specimen.
8	0	6·25		Do. Bottom specimen.
3	0	6·25	5·15	Right Bank. Middepth specimen.
3	0	6·25	7·10	Left Bank. Middepth specimen.
0	6	6·25		Centre. Top specimen.
1	6	6·25	5·38	Do. Middepth specimen.
2	0	6·25		Do. Bottom specimen.
0	9	6·25	4·20	Right Bank. Middepth specimen.
3	0	6·25	4·20	Left Bank. Middepth specimen.
0	6	6·25		Centre. Top specimen.
1	6	6·25	3·99	Do. Middepth specimen.
2	0	6·25		Do. Bottom specimen.
1	0	6·25	6·92	Right Bank. Middepth specimen.
3	0	6·25	·90	Left Bank. Middepth specimen.
0	6	6·25		Centre. Top specimen.
1	6	6·25	8·51	Do. Middepth specimen.
2	0	6·25		Do. Bottom specimen.
1	0	6·25	·74	Right Bank. Middepth specimen.
3	0	6·25	3·61	Left Bank. Middepth specimen.
0	6	6·25		Centre. Top specimen.
1	6	6·25	7·92	Do. Middepth specimen.
2	0	6·25		Do. Bottom specimen.
1	0	6·25	4·25	Right Bank. Middepth specimen.

column 8 are doubtful.

STATEMENT

Serial No	Name of the River and site.	Date.	Station of the section.	Gauge reading.	Total depth of water at station.
1	2	3	4	5	6
				Ft.	Ft. in.
63	Kukari at Pimpalwadi.	14th July 1924 ..	Left Bank ..	..	13 0
		Do. ..	Centre ..	..	11 6
		Do. ..	Do. ..	..	11 6
		Do. ..	Do. ..	..	11 6
		Do. ..	Right Bank ..	..	7 0
64	Do. ..	27th July 1924 ..	Left Bank ..	..	13 8
		Do. ..	Centre ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Do. ..	..	12 0
		Do. ..	Right Bank ..	..	8 0
65	Do. ..	28th July 1924 ..	Left Bank ..	..	14 0
		Do. ..	Centre ..	..	12 8
		Do. ..	Do. ..	..	12 8
		Do. ..	Do. ..	..	12 8
		Do. ..	Right Bank ..	..	8 6
66	Do. ..	3rd Aug. 1924 ..	Left Bank ..	..	12 8
		Do. ..	Centre ..	..	12 6
		Do. ..	Do. ..	..	12 6
		Do. ..	Do. ..	..	12 6
		Do. ..	Right Bank ..		9 0
67	Do. ..	23rd Aug. 1924 ..	Left Bank ..	..	6 0
		Do. ..	Centre ..	..	6 0
		Do. ..	Do. ..	..	6 0
		Do. ..	Do. ..	..	6 0
		Do. ..	Right Bank ..	..	7 0
68	Do. ..	27th Aug. 1924 ..	Left Bank ..	..	17 0
		Do. ..	Centre ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Do. ..	..	18 0
		Do. ..	Right Bank ..	..	17 0
69	Do. ..	27th Sept. 1924	Left Bank ..	..	6 6
		Do. ..	Centre ..	..	9 5
		Do. ..	Do. ..	..	9 5
		Do. ..	Do. ..	..	9 5
		Do. ..	Right Bank ..	..	4 10

* Velocity observations

No. X—*concld.*

Depth from surface of silt specimen.		Surface velocity of the river at each station. Feet per second.	Weight of dry silt in 10 ozs. of water.	Remarks.
7		8	9	10
Ft.	in.		Grains.	
6	6	5·00	3·07	Left Bank. Middepth specimen.
0	6	5·00		Centre. Top specimen.
5	9	5·00	4·24	Do. Middepth specimen.
10	6	5·00		Do. Bottom specimen.
3	6	4·00	5·72	Right Bank. Middepth specimen.
6	10	5·00	4·27	Left Bank. Middepth specimen.
0	6	6·00		Centre. Top specimen.
6	0	6·00	4·50	Do. Middepth specimen.
11	0	6·00		Do. Bottom specimen.
4	0	4·00	2·93	Right Bank. Middepth specimen.
7	0	5·00	1·71	Left Bank. Middepth specimen.
0	6	6·00		Centre. Top specimen.
6	4	6·00	2·47	Do. Middepth specimen.
11	8	6·00		Do. Bottom specimen.
4	3	3·83	8·28	Right Bank. Middepth specimen.
6	4	5·00	3·24	Left Bank. Middepth specimen.
0	6	6·00		Centre. Top specimen.
6	3	6·00	12·46	Do. Middepth specimen.
11	6	6·00		Do. Bottom specimen.
4	6	3·58	·68	Right Bank. Middepth specimen.
3	0	3·58	6·33	Left Bank. Middepth specimen.
0	6	3·50		Centre. Top specimen.
3	0	3·50	14.33	Do. Middepth specimen.
5	0	3·50		Do. Bottom specimen.
3	6	3·42	4·69	Right Bank. Middepth specimen.
8	0	.. *	5·89	Left Bank. Middepth specimen.
0	6	.. *		Centre. Top specimen.
9	0	.. *	6·59	Do. Middepth specimen.
17	0	.. *		Do. Bottom specimen.
8	6	.. *	4·46	Right Bank. Middepth specimen.
3	3	4·75	18·97	Left Bank. Middepth specimen.
0	6	4·83		Centre. Top specimen.
4	8½	4·83	8·58	Do. Middepth specimen.
8	5	4·83		Do. Bottom specimen.
2	5	5·00	11·43	Right Bank. Middepth specimen.

* could not be taken.

ADDENDA TO THE REPORT.

(1) ABSTRACT SHOWING THE DISCHARGES OF THE GHATA-PRABHA RIVER AT THE DHUPDAL WEIR (GOKAK CANAL).

(2) STATEMENT SHOWING DISCHARGES OVER THE WEIR AT VIR FROM THE YEAR 1906

FOR

NIRA RIGHT BANK CANAL

(Project No. 11, and item No. 50 of Statement V.)

Abstract showing the discharges of the

Months.	1905-1906.	1906-1907.
April	2,011	2,011
May	2,126	2,142
June	11,021	50,488
July	326,507	419,838
August	139,576	246,214
September	62,309	158,408
October	11,715	30,332
November	3,936	12,860
December	2,617	3,588
January	2,485	2,793
February	2,220	2,342
March	2,026	2,081
April	....	...
Total of the daily rates of discharge in cubic feet per second ..	618,549	933,097
Total quantity discharged in million cubic feet = above line ×86,400	53,443	80,619
Add—Contents of the tank on 1st April following of every year up to 1921-22 and on 1st May of 1923 and of every subsequent year respectively	432	487
Total million cubic feet	53,875	81,106
Deduct—Contents of the tank on 31st March of every previous year up to 1921-22 and on 30th April 1922, and on 1st May of 1923 and of every subsequent year respectively ..	494	519
Grand Total, million cubic feet	53,381	80,587

Note.—Figures for the years 1888-89 to 1904-1905 also are available.

Ghataprabha river at the Dhupdal weir (Gokak Canal).

1907-1908.	1908-1909.	1909-1910.	1910-1911.	1911-1912.	1912-1913.	1913-1914.
2,219	2,171	1,829	2,153	1,979	2,360	2,071
2,282	2,008	679	812	1,852	4,863	1,825
53,331	33,422	68,389	120,160	158,591	67,394	172,064
432,356	1,042,713	881,409	311,802	288,423	1,187,584	441,057
1,051,461	617,575	187,352	582,549	367,883	583,610	360,585
160,013	76,842	56,945	108,511	116,217	97,226	62,751
59,871	16,280	36,999	111,524	24,453	39,925	28,210
8,453	5,291	3,691	11,752	5,489	3,876	3,913
3,861	3,101	2,912	9,777	4,370	3,806	2,868
2,681	2,824	2,523	2,450	2,802	2,958	2,603
2,358	2,213	2,342	1,995	2,104	2,304	1,193
2,252	2,156	2,157	1,979	2,023	2,084	999
....	....	....	....	....	....	....
1,781,138	1,806,596	1,247,227	1,265,464	976,186	1,997,990	1,080,139
158,890	156,090	107,760	109,336	84,342	172,626	93,324
536	379	379	516	576	497	143
154,426	156,469	108,139	109,852	84,918	173,122	93,467
513	536	389	585	373	373	509
153,913	155,933	107,750	109,267	84,545	172,750	92,958

The total of the daily rates of discharge in cusecs for April 1922 was 2,090.

Abstract showing the discharges of the

Months.	1914–1915.	1915–1916.	1916–1917.
April	854	1,912	1,788
May	1,969	2,127	14,329
June	33,313	151,225	251,343
July	1,233,993	491,147	197,246
August	877,896	381,020	652,427
September	283,032	154,507	155,439
October	47,021	98,219	57,395
November	17,586	17,017	189,203
December	9,435	5,890	16,981
January	2,936	3,521	8,614
February	2,075	2,270	3,708
March	1,861	1,861	2,231
April	....	....	....
Total of the daily rates of discharge in cubic feet per second ..	2,511,971	1,310,716	1,550,704
Total quantity discharged in million cubic feet=above line ×86,400	217,034	113,246	133,981
Add—Contents of the tank on 1st April following of every year up to 1921-22 and on 1st May of 1923 and of every subsequent year respectively	705	724	1,001
Total million cubic feet	217,739	113,970	134,982
Deduct—Contents of the tank on 31st March of every previous year up to 1921-22. on 30th April 1922, and on 1st May of 1923 and of every subsequent year respectively ..	148	718	736
Grand Total, million cubic feet	217,591	113,252	134,246

Ghataprabha river at the Dhupdal weir (Gokák Canal)—concld.

1917-1918.	1918-1919.	1919-1920.	1920-1921.	1921-1922.	1922-1923.	1923-24.	1924-1925.
2,158	2,250	653	1,957	882	....	....	....
2,319	4,215	1,178	796	836	1,610	2,357	724
196,506	56,887	117,858	100,052	119,239	106,533	15,053	61,464
337,326	154,241	376,258	629,525	424,689	667,712	1,152,609	765,434
261,394	384,056	448,107	218,350	461,448	331,476	662,601	387,049
332,625	73,862	112,969	77,217	158,247	129,452	82,179	199,030
179,350	17,175	62,033	30,873	37,550	25,280	20,595	35,883
43,473	9,813	13,850	5,680	66,833	24,688	3,077	8,787
11,244	3,620	7,638	3,618	4,179	6,267	2,765	4,543
7,425	2,875	3,222	2,879	3,343	3,222	2,659	2,869
2,356	2,058	2,226	2,028	2,558	3,398	1,228	2,103
2,116	1,592	1,093	1,417	2,148	1,972	844	1,779
....	....	....	....	....	8,500	836	725
1,378,292	712,644	1,147,085	1,074,392	1,281,952	1,310,110	1,946,803	1,170,390
119,084	61,572	99,108	92,827	110,760	113,193	168,204	127,042
967	298	541	265	503	698	239	2
120,051	61,870	99,649	93,092	111,263	113,891	168,443	127,044
1,008	974	304	555	261	302	698	238
119,043	60,896	99,345	92,537	111,002	113,589	167,745	126,806

Statement showing discharges over the

Month.	Total discharge			
	1906.	1907.	1908.	1909.
	C. ft.	C. ft.	C. ft.	C. ft.
June	3,692,347,200	1,646,913,600	....	8,048,419,200
July	25,621,617,600	32,761,281,600	46,201,708,800	46,129,478,400
August	14,560,473,600	54,453,859,200	40,297,478,400	10,712,390,400
September	7,260,192,000	3,502,785,600	5,049,648,000	4,823,452,800
October	....	675,734,400	....	398,390,400
November	....	....	....	....
Total ..	51,134,630,400	93,040,574,400	91,548,835,200	70,112,131,200

Month.	Total discharge			
	1915.	1916.	1917.	1918.
	C. ft.	C. ft.	C. ft.	C. ft.
June	21,750,163,200	....	4,627,454,400	754,358,400
July	23,012,337,600	7,135,344,000	21,771,763,200	2,891,980,800
August	19,200,844,800	30,094,156,800	24,784,790,400	17,475,523,200
September	10,426,968,000	8,892,849,600	16,849,339,200	2,883,772,800
October	3,036,916,800	2,552,212,800	11,707,761,600	1,125,619,200
November	....	1,623,628,800	1,144,540,800	....
Total	77,427,230,400	50,298,192,000	81,885,649,600	25,131,254,400

weir at Vir from the year 1906.

of month.

1910.	1911.	1912.	1913.	1914.
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
5,826,643,200	4,664,520,000	265,723,200	21,020,169,600	590,025,600
19,680,321,600	3,430,425,600	40,767,883,200	29,902,780,800	55,681,300,000
36,453,369,600	26,448,552,000	24,712,560,000	13,736,606,400	39,003,681,600
6,050,116,800	5,274,288,000	2,606,774,400	3,642,537,600	19,411,704,000
10,373,918,400	....	580,038,400	948,369,600	....
....	....	....	....	....
78,384,369,600	39,817,785,600	68,932,979,200	69,250,464,000	114,686,711,200

of month—*contd.*

1919.	1920.	1921.	1922.	1923.	1924.
C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
3,833,568,000	4,553,582,400	....	7,211,225,600	....	....
20,913,235,200	45,481,910,400	21,727,656,000	46,222,329,600	26,604,590,400	19,353,904,000
42,315,696,000	16,148,116,800	30,260,174,400	24,153,263,600	38,425,579,200	26,903,102,000
11,905,876,800	3,490,689,600	8,061,379,200	11,685,818,400	3,748,464,000	6,143,861,000
3,855,427,200	150,206,400	565,660,800	1,373,062,800	12,312,000	2,476,157,000
....	....	....	....	....	....
91,823,803,200	69,824,505,600	60,614,870,400	90,645,700,000	68,790,945,600	54,877,024,000

Note by the Chief Engineer for Irrigation reviewing the Annual Report of supplies of water available for irrigation works and of the discharge from catchment areas in the Bombay Presidency for the year 1924

The discharges recorded this year at Mithankot below the junction of the Chenab with the Indus are generally higher than those at Sukkur. The discharges at Dera Gazi Khan and Punjnad (recorded by the Punjab Government) have been given below statement I as was done last year.

2. The report deals with the results of observations made from 1st May to 30th April following. The gauge curves at Bukkur at Kotri pertain to the year ending 31st December.

3. Statements II, III and IV remain unchanged.

4. Statement V has been prepared on the lines of one for the last year. The discharges from rivers in the Deccan with ghat catchments were lower than those of the last year. In the case of other rivers the discharges were generally higher than those of the last year due to better rainfall.

5. *Statement No. VI.*—Bhandardara has been added to the statement. Ghat-fed tanks showed less run-off than in the past year.

6. Two additions have been made this year to statement No. VII. Observation for silt deposited in tank basins were made for (1) Muchkundi Tank and (2) Gokak basin in statement No. VIII.

7. During the year under report observations for the distribution of total losses due to (1) evaporation, (2) leakage and (3) percolation and absorption were made for seven tanks only as in the past year the only change being that Hartala Tank of last year has been replaced this year by Mhaswad Tank.

R. T. HARRISON,

28th July 1926. Chief Engineer for Irrigation.

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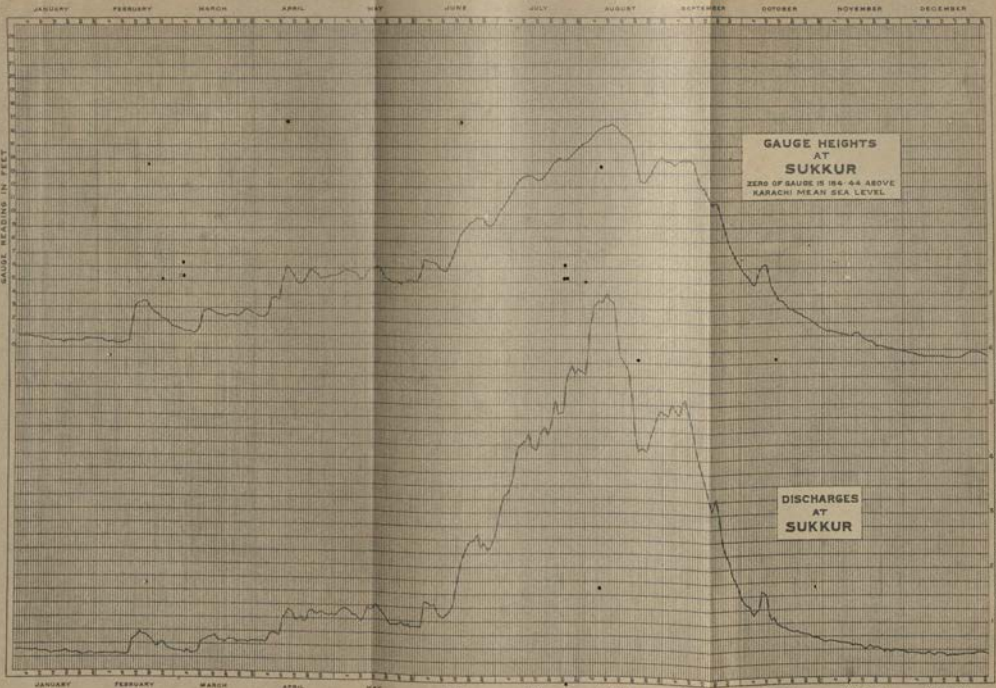
RIVER INDUS
1924



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MAP
OF
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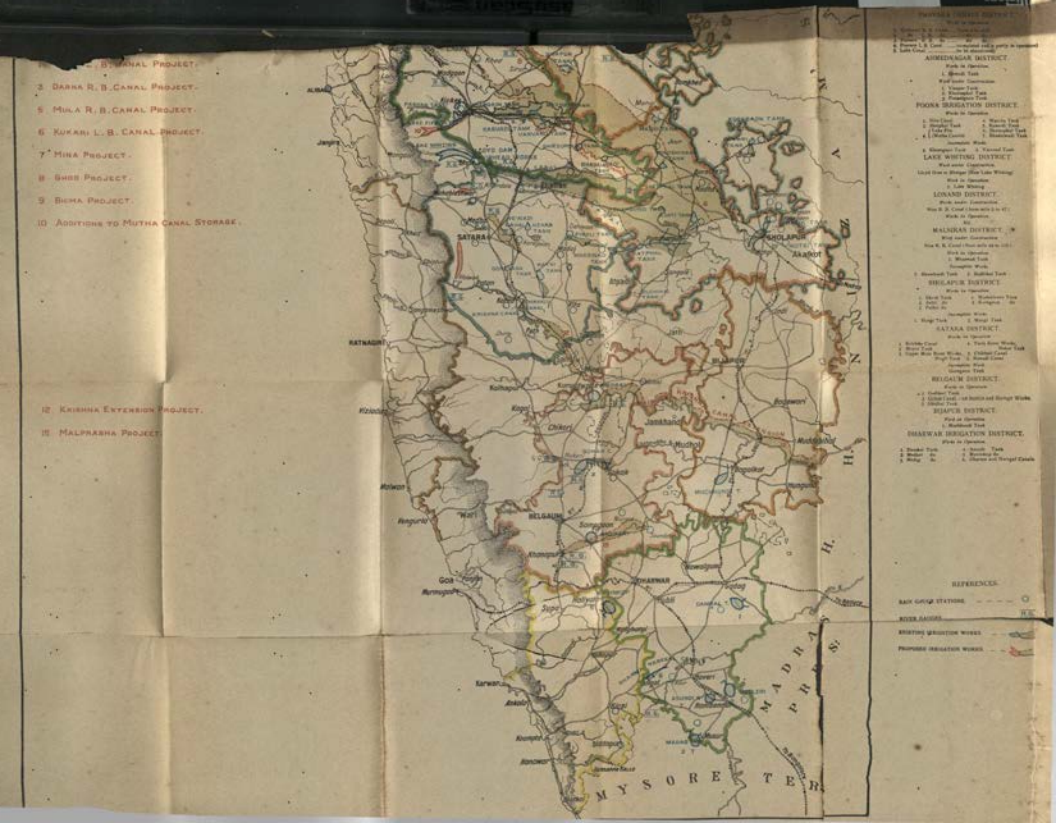
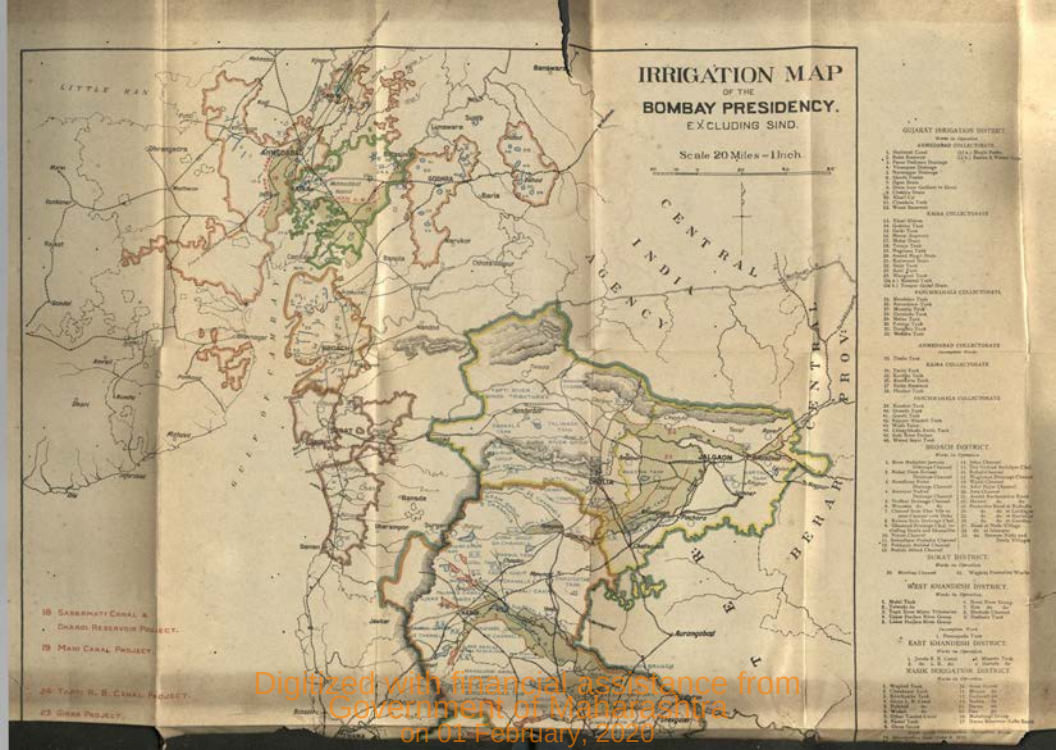
SHOWING
NAMES & LOCATIONS OF PROJECTS
Scale 20 Miles to an Inch
REFERENCES
SANDY HILLS
GENERAL
PUNJAB
RAN OF CUTCH
ARABIAN SEA


2. Darna R. B. Canal Project.
5. Mula R. B. Canal Project.
6. Kukadi L. B. Canal Project.
7. Mina Project.
8. Ghod Project.
9. Bhima Project.
10. Additions to Mutha Canal Storage.
12. Krishna Extension Project.
13. Malprabha Project.
SATARA
KOLHAPUR
SHOLAPUR
BELGAUM
KARWAR
MYSORE TER.
MADRAS PRES.
REFERENCES.
RAIN GAUGE STATIONS
RIVER GAUGES
EXISTING IRRIGATION WORKS
PROPOSED IRRIGATION WORKS



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